

<223> Clone ID: LIB190-042-Q1-E1-G7

<400> 4641

acggacgcgt gggaaaaaaaaa acaaaaaaaaaa gaaaaaaaaaca aaaaaaaaaacaa aagaagtggaa 60  
ggtagcacaa aaggatgcaa gcttacgtgg tcgtgcattgc aattgtccgt gcgtttctta 120  
caatgtcacc caaattccat t 141

<210> 4642

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-G8

<400> 4642

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cgttcaccag aggtacatct tctttgttg atcccttaggc ttacttcatt ttctgaagtg 120  
ttacgcccga agtcagcaact gcaacaacca cttcatatt ttccgaagga agagttttt 180  
gaggcatcaa tcaatgttag atatccatct tcgtcgagg tagccattat ttgacctccg 240  
cctgctattc ttgaaaattc aaccgcaaac agaggtactg gatagtattc atcgttcaca 300  
aactcacacg agtgacgcct agaagtccac aaggaaaaaa aaagttcatg tgttttcttt 360  
ctatataagt catcgattc ttgtcttgag agtctctcta gctctcggtc aaacaaagtg 420  
ctcagagtac aat 433

<210> 4643

<211> 440

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H1

<400> 4643

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gaagaacaac agcaattcat cgacgagtca ggataaacga cagtatcatt tatccaattt 120  
tatagcaatg acgggacatg tgattgctcg agcggaaaaaa tggaaatcaa agccttggac 180  
agcacgtgct acttgttagta ttggattgca agtcaaaaa ggaaaacttc gtagaaaatg 240

gtttgattt agtggattct ctttcaagt ctcacaaact gtgggtgcac tttccacctt 300  
tctatggaa agggagaac aaagaacggc tttgaatggc ggttgggaa aacattata 360  
tggcaactgt agaataggat tggaaaggag atggacttgtt gtttggc aaccaatgga 420  
aaccaaacta tcttgcaat 440

<210> 4644  
<211> 449  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H10

<400> 4644

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caaactgtca acttgttagtt tgctctgttataaacttgaa agacttttg ggtcagcaag 120  
tttatgaaca actccagaaa gtatcctctg atactgaaag cgtttgaac aagttggatc 180  
ctctcgcaa gttgttagga caattattga cgagcgatgt tcctatagaa cccgattcgt 240  
cccatatttt ttccaaaaca gcagataggg acgagatgga agtggaaagat gtgagtagag 300  
aaagagtacg aggtgttata cctttgatt ggaaaacgtt tcttcaccag cgtgctttat 360

tgccggaaga agttcaact cgttatgctc cgagttttc acgtatattt ggagataacc 420  
caagagtaat tctgaggagc tcactaaag 449

<210> 4645  
<211> 111  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H12

<400> 4645

gtccgagaaa ggaatggttt tattagatag tggagtcagt cgtttagact agtgtgctgt 60  
atatattgtt tgacgtcttg aaaggctcgcccggtgctgttgtggactt t 111

<210> 4646  
<211> 461  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H2  
<400> 4646

attaacgggt cgacgcacgc gtccagtagc gaaacaagag aagggaaagta aaaggtaaga 60  
aagaggaaag gtttacgaga gaaggaagta gaaagaagag agtctaaggc ggcgtcataa 120  
tagaaatccg aaaggagtag aagaaaagag agagaagaaa gaaaagaaga gaaaagccgt 180  
actgaagacc gacacaggtt ctcgaggaga aaggagaccc aaattaaggt gagagaatgg 240  
acgataagga actaggcaaa aggatatggt atctgcggta gaacatatga aagaagcgc 300  
accgactgtt tagcaaaaac acagcactct gcagaaaaga gaaaatgtaa agtatacgat 360  
gtgcggcctg ccaaatacgatg gagtagcgaa acaagagaag ggaagtaaaa ggtaaagaaag 420  
aggaaagggtt tacgagagaa ggaagttagaa agaagagagt g 461

<210> 4647  
<211> 466  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H3  
<400> 4647

ggtccagaat tcacgggtcg acgcacgcgt ccggaaatcag ggtaagaggt agaggagcaa 60  
gaagagaaga gagaatgctg ggtggagtag cgaaacaaga gaagggaaagt aaaaggttaag 120  
aaagagggaaa gtttacgag agaaggaagt agaaagaaga gagtgtaagg cggcgtcata 180  
atagaaatcc gaaaggagta gaagaaaaga gagagaagaa agaaaagaag agaaaagccg 240  
tactgaagac cgacacaggt actcgaggag aaaggagacc caaattaagg tgagagaatg 300  
gacgataagg aactaggcaa aaggatatgg tatctgcggta agaacatatg aaagaagcag 360  
caccgactgt ttagcaaaaa cacagcactc tgcagaaaag agaaaatgtaa aagtatacgat 420  
tgtgcggcct gccaaatacgatg agagaagaaa tcgatgaaag tgaaag 466

<210> 4648  
<211> 392  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-042-Q1-E1-H4

<400> 4648

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gtcataatag aaatccgaaa ggagttagaa agaaagagaga gaagaaagaa aagaagagaa 120  
aagccgtact gaagaccgac acaggtactc gaagagaaag gagancaaa ttaaggttag 180  
agaatggacg ataaggaact aggcaaaagg atatggtac tgcggtagaa catatgaaag 240  
aagcagcacc gactgtttag canaaacaca gcactctgca gaaaagagaa aatgtaaagt 300  
atagagtgtg cggcctgcc aatagtagag aagaaatcga tgaaagtgaa agcgagtaaa 360  
agatgaggtt tagagaatgg cggtcctaac ag 392

<210> 4649

<211> 265

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H5

<400> 4649

caggtaaagg tctagaagtc ccgggtcgac ccacacgtcc gaccacgcgt ccggaaagag 60  
gaccgaatca gggtaagagg tagaggagca agaagagaag agagaatgct gggtgagta 120  
gcgaaacaag agaagggaaag taaaaggtaa gaaagaggaa aggtttacga gagaaggaag 180  
tacaaagaag agagtgttaag gcggcgtcat aatagaaatc cgaaaggagt ataagaaaag 240  
agagagaaga ataaaaagaaaa atcac 265

<210> 4650

<211> 264

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H6

<400> 4650

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aagagagaat gctgggtgga cttagcgaaac accagaacgg aactcaaagg taagacagag 120  
gaaagggtta cgagagaagg aagtacaaag aacacagtgt aaggcggcgt cataatagaa 180  
ctccgaaagg agtagaacaa accacagaga ccaccacccg tcgacacaaa cggcggccgc 240

tctagacgat ccacgcctac gtac

264

<210> 4651  
<211> 449  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H7

<400> 4651

attcccggt cgacccacac gtccatgtta gtcttcagtgtg gtagcggat atgtctctga 60  
cagacatcct gtattgggtg gacccagtag tttggagcaa acgcttgac cttccactat 120  
ctgttacttg cttcttata tatttcata tag tatttcata agcttgcgcc ttcttggta 180  
ttgctgacta ttgaaagctt ctgcgcaagt acaagctgca cgaaagtgac gagaagac 240  
acctgcaggtt gctgccaaga gttgtttca atcaactggc gttttacttg actagttgct 300  
acataggaga gaaaatgggt tggatattca gaacccttc taaagacaat gcttccaac 360  
tctgaaagtt gccttatctat cttactttgt actctttcta tcattaaatt atagttact 420  
ctgctcatcc ttggctgttg caatccaaag 449

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<210> 4652  
<211> 363  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H8

<400> 4652

acccacgcgt ccgaacaact attatcatct tggatgctc gccccctcct cttttttat 60  
tagaacatca tggtacaaac gaaatgatca aacacacaag gaataaaggc aacgtcgact 120  
ttttggaata gggccatgtt atcgaaatcg caaaactaat aggataacg tggatggatgt 180  
attttcaaaa ggtggataga cgtattgtat caattattgt aaaatcaggg aagatcttca 240  
acggagcaag ttgtaaacgc gaaaaggttt cccaaaaaa agtagatgac cctaatgttt 300  
cgctgttaagg aaactttgtt taacatataa aaaagctttt aaagtatttgc gtcttgtcaa 360  
aaa 363

<210> 4653  
<211> 425  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-043-Q1-E1-A10

<400> 4653

cgggtcgacc caagcgtcca ggcagcttca gtttgactc agattcaaag agaagccatg 60  
gagaaggcag ggaaaacatg gaatccggat gaggaaaaag cattccgtga ttcacttac 120  
gaaaagtatg aaagggaagg ctctccttat tatgcgtccg ctagaatatg ggatgatggc 180  
gtcattgctc cgcaagatac tcgaaaagta ttgggtcttg ccttgcgtccgt cgtaaccaat 240  
ggacagaaaag tatccaaaga acaagagcat ccgtttcct atggtatatt ccggatgtaa 300  
tggttatcca gaatcatttc taagcatctc tataaagatt tattttattt tcttgtgtta 360  
aaaaaaagtcn ttgcaaaagc aaaacgagca agaagaataa ctactacgaa aacattacgc 420  
tgggt 425

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<210> 4654  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-A12

<400> 4654

ccgggtcgac ccaagcgtcc gagcacctgt attattatcg tttttgttgc tggtgttaaca 60  
gcctgtgtct ctctaaagag tttcttggaa tgcaagaggt tggattggtt ggtgattcgg 120  
tcaccaagct tcacttgcata aggccgcgtt tctcgcaata tgcaagaccc tggaaataatc 180  
ctgaaggaat atatgccttt gttcgacgtg aaaaagattt gggctccctta cccggtagag 240  
aatggactat tgatgagcta agattaaaat ccttgacga cttgcacaag ctttgggtgg 300  
tccttataaa ggaaagaaac gctttgttaa ctgaaagaga ctgggtgcgt acagcgaaac 360  
gagaatggaa cggtgaaaaa gctttagaaa aggtatgaag gagagcaaac ctttgcgt 420  
cccgatatcg cacagcaaca acac 444

<210> 4655

<211> 356  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-043-Q1-E1-A4  
  
<400> 4655

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ttatgtctt ttggataatc tcgccctaac tttgcaaattt gatcatttcc gtctttggc 120  
ggaagaagaa ccctttact tggcaatcc gttcacagtg agtaatttg acaaatatgg 180  
agagttctt gatgatcaag gaaaacccaaa tccctccctt gctcatggcg gttctggaaat 240  
tggtcttcg aaagcggcac tgaaaagat agtcgatcat attccgtggt gtatagaacg 300  
ttgggacgtt tgtaaagaag gggatgctgc aattggtccc tggtttctttt ctttc 356

<210> 4656  
<211> 382  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-043-Q1-E1-A8  
  
<400> 4656

ccccacgcgac cacgcgaaac aagagaagg aagtaaaagg taagaaagag gaaaggttta 60  
cgagagaagg aagttagaaag aagagagtgt aaggcggcgt cataatagaa atccgaaagg 120  
agttagaagaa aagagagaga agaaagaaaa gaagagaaaa gccgtactga agaccgacac 180  
aggtactcga ggagaaaagga gacccaaatt aaggtgagag aatggacgat aaggaacttag 240  
gcagaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga ctgttttagca 300  
aaaacacacgc actctgcaga aaagagaaaa tgtaaggtat agagtgtgctg gcctggcaaa 360  
tagtagagaa gaaatcgatg aa 382

<210> 4657  
<211> 436  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-043-Q1-E1-B10  
  
<400> 4657

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gttgctcacc tagttccag ccacttaaag gatgaagcca aagacgcaaa gatagtttgc 120  
gttgatattt cggacgaaat gcttaaagtt ctcaacccaa gagcacagga aatggggcta 180  
gcaaataatgg tggaaacccg ctgtgaggac gccgagaagg tcgactttgg tgcgcaactat 240  
tttgatatgg ttatgagtca gtttggagtt atgttttgc cccatcttgt ggaagacttg 300  
gcgaggattc gcggtatgtat gaaaccgggt agtttatttt ctgtgttgt ttggggagag 360  
aaaaaggact gtcataatttt ttacgcagct aggagcgtta tcagtcctcc tcctccacct 420  
ccaggaactc cagttt 436

<210> 4658

<211> 331

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-B4

<400> 4658

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tgcatcgtatc tctagagaaa ggcaagaaaag aaaagaaaagg aagacacagt aaatgaggcg 120  
agaaaaggata gaaagtgaaa cggatttaga acccgtagtgc tctatgcagt aaaagaaaaga 180  
atgatgtatc aaaaagggag tcattccacc agggagtagaa aggcatgaa aagaaaccc 240  
gaccaattgtc cggaaatcggt aaaaagggtt ggatcactaa attaatccgtataaaaccgt 300  
gaaccttacc tctccaagag ggtgttgcac g 331

<210> 4659

<211> 302

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-C12

<400> 4659

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gcaaaaacac gtgccagcag cagcgtaaa acgtgtgtcaagcgtaga gcagaagaac 120  
tgggtgtaaa ggtcgagtag tagagtaagt gtaaaaaggaa aaggaaaggaa gagaaagg 180

aaaggatga aatgcagaga tctctagaga aaggcaagaa agaaaagaaa ggaagacaca 240  
gtttatgagg cgagaaagca taggaagtga aacggattag gaacccgtgt agtctatgca 300  
gt 302

<210> 4660  
<211> 297  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-C6  
<400> 4660

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atgtctcgtc ccaagtgttt ctgtatatt gctatcggtg gacaacctgc aggaaggatt 120  
gtattcgagt tggtctccga tgtcgttcct aaaaccgcgg aaaattccg tgccctgtgt 180  
accggtgaga aagggtttgg gtacaaagac tccaagttc ataggatcat tctccagttc 240  
atgtgccaag gtggagactt tacacactgc gatggaaccg gtggcaatag tatttac 297

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<210> 4661  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-D11  
<400> 4661

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aaatgagcca aagcgactcg ttgggttgt tgctttcgc gccagcagct gtatccaaa 120  
aagcaacagt tatcaaagac ttgaaacaac aagattgtga gatagtgtat gaggaacaga 180  
tttagattgga cgtcgagcgt gcgaaaaagt ttcttgagtt gtattccaag cgcaatgtac 240  
aagaagcaaa ccgaaaagaa gacacgatag ccacactaac ggaagactcc tgctggcac 300  
ttgttgtaaa aaagaaacaa ctgtcgacga ctttgcacca actatttcaa cagaataatg 360  
tttctgcgga taaggaggaa ggaggagaaa acacggagga gaatgtttc tcgacaaaat 420  
atggtttc 429

<210> 4662

<211> 386  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-043-Q1-E1-D12  
  
<400> 4662  
  
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gaaatggctt tagacaatgt taaaaatggat cagatggaaa gaatccgcaa gacaattatt 120  
tcaagggtac cagacgttcc taccgtggtt gaaattggag caggctcagg tctcaatttc 180  
ctgcactacc ctctttatgt gaaggatttg acagttatta ctttacaaga agaactcagc 240  
aaaagagctc gacaaaaggc acaacagaga ggtctgaatg tgcatcatat tcagggagat 300  
ggccgagtagc ttccttgaa agataactcg gttgatgtgg tcgttagcaac ctttcttattg 360  
tgcacagtaa gcgtatgtcgc ggggtt 386

<210> 4663  
<211> 155  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-043-Q1-E1-D8

<400> 4663  
  
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aaaaaaaaag gcgaaagcac ctgagggtat aaaacttacg tacacgtgca agcaacttta 120  
ctggctcgta gaaactgtca gccaacgtta ctttt 155

<210> 4664  
<211> 73  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-043-Q1-E1-E10  
  
<400> 4664

aagaggttcc aggcttactt ccgcgtgcat gcaacttcat acctcttcgtt atattgtcac 60  
ctaagtgtca ctt 73

<210> 4665

<211> 109  
 <212> DNA  
 <213> Cyanidium caldarium  
  
 <223> Clone ID: LIB190-043-Q1-E1-E5  
  
 <400> 4665  
  
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 agaacacttc attttttaac caaaaagaaaa gaagaggaga agggaggggg 109  
  
 <210> 4666  
 <211> 406  
 <212> DNA  
 <213> Cyanidium caldarium  
  
 <223> Clone ID: LIB190-043-Q1-E1-E9  
  
 <400> 4666  
  
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 acttaaggtg caaacagatc tgacggaaaa tagtcagaaa aataagtctt caagctcaag 120  
 agcttcttgg gaagagtctt tgcggagtgc gaatagaaga gacgaactgg aatgttcgac 180  
 ttctgtttt ggaaaacgcag ctatgcac ttttgtatt tgtttgttta atgtcccttg 240  
  
 ttgtcttgat tggatttttc ttgttcttc gagcagaatg aattcaaggc cacctttga 300  
 atgatcgat cgatcatttta gaagagctgc taaaagtca ggatggaaaa tgtcagagag 360  
 atttgccctcc agtagcagaa tgtgctaaag aaccttcgtc actcat 406  
  
 <210> 4667  
 <211> 376  
 <212> DNA  
 <213> Cyanidium caldarium  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB190-043-Q1-E1-F10  
  
 <400> 4667  
  
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 aagtgcattt tgttggaaaa ttgctgcaat tctgttgact cgtttcaattt gttccttattt 120  
 cattgtttcc ttacggcat tatcttttga agctagttt aaagtgtatc gctctttaca 180  
 cttgattgggt aagtgcacat agtttacaag gttgtgagcg aatcacgaag agggagttgt 240

tctangacat gctattttgt tggtcgctgt gggttgcata tacagtggca tatttgataa 300  
actcggtgcg aaatatcatc ttggaaatgc ccacaaagcc agttcggtga acaataaaaat 360  
ggattaacctt gcgtgg 376

<210> 4668  
<211> 457  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-043-Q1-E1-F11  
<400> 4668  
  
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cttttgcaa aaagtggaaa acattctaa ccagaagcaa gatgtcattc ctgcactgg 120  
ccatggagat ctatggtcag gcaacattgg tttcttaat acgggtgagc ctgttaatttt 180  
tgaccctgcc acctattatg gtgatcggga agtagacata gctatgacag aattatttgg 240  
aagattgcct gaagagttt atattgctta caacgatgaa tttccgttag cggaaggata 300  
tgagcaacga agaatcatat ataatctta tcacgtctta aatcattaca atctatttgg 360  
aggaaatgtat ggtcgtaag cgaagagtat gatggaagaa ataatggagt ttatgtgata 420  
gtgcttatta gtttcaaaa gttgacattt tccaaat 457

<210> 4669  
<211> 361  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-043-Q1-E1-F3  
<400> 4669  
  
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gacgtttcct aaagaaaatcc ctacttcgtta ttgtctcggt tatgcacttt tggctattcc 120  
ggtaactcgcg ctgcacgtgt atttatatct tgccgtactc cacttgaact ttattgcttc 180  
aagcgtttcg ttgatcatcg gtactacagt cggcttgggt cttctagttt cgtcgatca 240  
taaaaactgca tatgccaagt ggtctaagct cgatcgacaca acagagcaac caaccaagag 300  
ctctttcaag ggtaatttgc cggcataccg aagtggagtt gagagtcacc tatggctcct 360

g

<210> 4670  
 <211> 180  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-043-Q1-E1-F9  
 <400> 4670

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 cattcttaca ttccagttaga tgtacaatat ttttttcatt gtcaaaaaat attgcacaat 120  
 ccacccatcg aaccacgaaa aaaaaaggct ttccaggctt tctttctaca cttttgcaaa 180

<210> 4671  
 <211> 424  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-043-Q1-E1-H11  
 <400> 4671

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 tttctctagt tcagctgtcc ttgtgaagta ctttattgtt acccaggttc aatattccca 120  
 aagctgcgag taaggaagag aagccgcct caaaacgcgc tgtatcccc tacaacgaat 180  
 atatgaagaa gatgcttccc gtcataaagc aacaaaaccc caatcttcg catcaggaag 240  
 ctttaagcg ttgtgctgaa agttggaaag acgctccaga gaatccaaag aaccaggctt 300  
 cagcctaagt taggggtttt ctttgaattt gtgtttctca acaccaccag gagaaggaac 360  
 tagtctattt tatatttcgc tttgtgtctt caagcacgga atatgaggag aggttagactt 420  
 ttgt 424

<210> 4672  
 <211> 342  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-043-Q1-E1-H5  
 <400> 4672

cccacgcgac cattttttt tttttttt taaacaaaag aatggagaca tatacttatt 60  
ctgttctata gtgagaagca cattgaggac cactagaaag ctgcatacga aacaacaaca 120  
acctacacaa ctaacgacac gagataactt gagacacaca aacacaagca tatccgtgca 180  
cacacgccga gttgtgatta gcccacacg cacacacacc ctactatcg t gctgaaatca 240  
aacctcttaa aacatgtccc tgaaatacac agagtttaat aaagcagacc ttttcgcgtt 300  
ccaaaaaact agttcaaag caatttgta aaaacgtgaa ta 342

<210> 4673

<211> 365

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-H7

<400> 4673

acccacgcga ccacggacgc gtggggcaa cgatgaaagc tgcgtcagaa agcaaagctt 60  
taaagggaat attggcatat accgaagata tggtagttc tactgacttt gttcacaata 120  
gtcatttttc gatatttgat gcgaatgctg gaattatgtt gtcggaaact tttgtgaagc 180  
tgattgcttg gtatgataat gagtgggct actccaatcg tttttgttagat ttgggtgcacc 240  
atatggcgaa agttgatggt gtagcttaac tctgctttc ttgttgtttt ttcgtgtatt 300  
gtttgttttg tgaaagagat gaaatgtgtt gtctttcca taaaaagttg tgtgcgtgt 360  
gaaaaa 365

<210> 4674

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-A10

<400> 4674

attccaaagt cgaccgcgc gtccgagcat gcgaccgccc acgcgtccgc ggacgcgtgg 60  
gatgaacaga ttcgatatact tcgataatga tgctgtgaga agtttgacag tcctcgta 120  
tgctgatata tcttcaggat ctgcgagtc tctttgtctc gtcgaatcca aatgaacttc 180  
ttgacggctt cgcgacagaa ccgtccttgg acgttagattt tgcctctaaa tgttggta 240

tcgcagaatg ctgttaagcaa cgaaaatcgc caaatgtgagt tgaatcaata gtttgcacct 300  
tcagtttcag tgttatccag tacactcatg gcgccttgg gaaacatggc actacagagt 360  
tcaaagaata gacatgttga tgacccgacg gtggtgacct gtgctgcctg a 411

<210> 4675

<211> 370

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-A12

<400> 4675

acgtccagta tgaaaggaga aacgagtgta gcactgtcta gtcgtccaac tcagcgaaac 60  
agcaataact gtgaaaatgc agtaaactag cagtaggacg gaaagacccc ataattcttg 120  
actagatagg ttttagggagg agagagaatc atgaagttaga ggaggtgggg taagagatga 180  
aagaccactg catgaggata aggaatctaa ctgagtaagg aaaataagct taagcttagtt 240  
tggctgggga agtaaaggcct aagaaagagt aaattaggca agcaaaggca tgagagaagt 300  
ataatagcag aagcatgctt gaagaaaaag aaagagattt cagaaaggga agaaaagtca 360

gctatagaga 370

<210> 4676

<211> 410

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-B9

<400> 4676

gtcgacccgc gctccgacc acgcgaccgc gacaatgaga aattggaggt ttttttgt 60  
ccaaggacac actggatata cacttggagt gggaaatggat aaggtctcaa aagacaacaa 120  
ctttgtcaaa gtaataactag atagtgacca caacttctct ccctgccggt tggatatgc 180  
tagcaccgta gagaatggtt tgaaggaacc aggtatgctt ggaaagaata gctcgaagaa 240  
aacccctgttgcgtt ttgctgtgaa tggagttgtg ccaacatgcg ccagttcggt 300  
gcttggtgga accaaatata tctttaagca gaacaacgag tcgcgtaagt acgctttgcc 360  
acgtcgaact tggcgccgtg tggtaaatcc atcggtcttg aagtgttgg 410

<210> 4677  
<211> 348  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-044-Q1-E1-C2

<400> 4677

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tttctctctt tccttatcgc tgccgcagtt gcagccgacg tagtttcaga agagagatgg 120  
ggatatgctc agcaaaccacca acaacagcaa cagtgcacac aagtatgtaa acagtatgca 180  
tactatcaga gtccagtcgt cacttccgtta accacacaga gcccatactg gacccaatgc 240  
tcgaagactg tgcanaccct ttgtccaaggc cagtgcattt acttataccca atctcctaca 300  
tggacctatt gcagcaccta caccaccact agcgttacat ctcaatgc 348

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<210> 4678  
<211> 378  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C6

<400> 4678

cggacgcgtg ggttaaattcg ggtcgccct cctatgcagt atcagtgtgc agactgtgga 60  
aatgttaacg aaatacgaaa gggtaacca gtccgctgca actcttgtgg cggtcgaatt 120  
ctgtacaaggc ttccggacgaa gagagtagtt cagtacgaaa ctcgttgact gcgttgcttg 180  
atacagtccct agtactattc acaaggccaga cgttacgcta ggaaagtttc tgggttcc 240  
gtaaaaactcc tcggatgatg tgtgcttatt tgtgttactg ttgcacgact ctaaatctaa 300  
accatttgat tttgttagtg tttgttgtct caagttgtta ataaaaaaact ttgcacatag 360  
ccaaagactt gttccaat 378

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<210> 4679  
<211> 413  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C8  
<400> 4679

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tttgaggagg aatagttgtt ttccgaatag gaggcgtcgc gtttctcgcg aggccctgc 120  
accagaacat ggagttgctt cgccaaacga taactatagt tcgcctcctt ttgtatTTT 180  
gtataatgtc tacctgccac gtcttgatac agtagcgccct gaaatagtgt acggaagcga 240  
agaatccttt ctgaaaacaag aacgacagtt gaaagaacgc tttgtgaagc gttacatgtc 300  
tcagcgggta ttcaaacaag acgaaaaaaga ggatagtttgc tccctatatgt tcgattctac 360  
cacagtagcg gtggaagacg gcgcctcag tggactgcc agtagagaga aga 413

<210> 4680  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C9  
<400> 4680

attcctaggt cgacccgcgc gtccgacaaa atgaaacgga agaatatttc gtAAATGAAG 60  
cgacgacttt gtagtcattt tggagaagct ttgcacaaca ttgcataag tagaaagaac 120  
aagcacttgt gtcgttgtt tttctacaac tacttggaa acacagttca tcaaacaatt 180  
gttgaagaga agcttttca accgggtgaa agaatacgaa taggagcctc tggaggaaaa 240  
gattccactg tattggcata tgttctcaag ttgttgaacg agagatatga ataccactgg 300  
gacttgggt tgctatctgt agatgaagga atacacggct atcgagacga ctctttaaga 360  
actgtggAAC aaaatagaga tgattacaat ctcccttat acgttgtatc ctatagtggaa 420  
ttgtatgatt ggactat 437

<210> 4681  
<211> 394  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-E11  
<400> 4681

cacaagtcaa atttgacaaa aggtcgaaat ttactccgc tggtatctg aaagtagttg 60  
catgtgatta tgtaaggcca atcagccaa agtcaagtta attttgaagc ccaatcttg 120  
gattacaagt agagatcctt gtaactgtcg aaggtcagtt acctgtcacg tggatagata 180  
gatatttata gagatgtaag catgttgctg tgaaacagtt ttgcaacgac tagtaatagc 240  
tatccataaa cgacttgagt gtatgtatcg tccaaacact tgcaacaacc tggctcgggt 300  
ttactgaaaa aataatcgag ctggcggctt ttgaattgct catcaagtca tgagggcggc 360  
tgctctagaa gatcttgact aaagtcagcg atga 394

<210> 4682  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-044-Q1-E1-E12

<400> 4682

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cctgtgccaa gcctggagaa acctgctaag aaaaagttaa attcgtcagg aagctacctt 120  
gtgattggag gttgtttggc aaacgccgct gtattgtttg ggggtttgat aagttttcgc 180  
cgtggaaact ctcgcaactc tcaaattgttt atgcgtgctc gtgttctgac acaacgtgca 240  
accttggttg cggtagcagg tactttctgg agtgcagcaa atatgaaaag ganggagagg 300  
gaacaggcag aagcagccgg cgaagagttg ggagtagaaaa cttggatga agacaaggcg 360  
atggctctcc tagaaaagac cggtcgacag aaaagtatga cgtagactgt atagtgttcg 420  
aattgtgaaa atggttta 439

<210> 4683  
<211> 163  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-H10

<400> 4683

gtccgacgaa aaaaaagaga aaaaggtaag aaagaggacc gaatcacggt aagaggtaga 60  
ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa gggaaataaa 120

aggtaagaaa gagggaaaggt ttacgagaga aggaagtaga aaa 163

<210> 4684

<211> 287

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-H12

<400> 4684

atttgaagat gactagatgt cattttggc acctttgtg taacagagtt ttctcggttg 60

tttgcgttacc tggaacgcgc tggatgttgc gtgttttcag tcaaatttcg tagtaaacga 120

aatcattcga tggtttgttgc gactgactgt cgtagggatt gtttttagctc atgccacaag 180

gctttcacat gcgccttata aactatgcat aaattgacaa atttgcaaa ggttagacaca 240

gttttcaagt gaaagatcat gggttgcgag aattttagaat acttgtg 287

<210> 4685

<211> 406

<212> DNA

<213> Cyanidium caldarium

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<223> Clone ID: LIB190-045-Q1-E1-A4

<400> 4685

cccggtggca cccacgcgtc agcacacgca tccggatatac acgagctaa ccattattgg 60

ggcttttgt tgcaagggtcg ctgcatacga aaagactagg attagtttat acacatgaca 120

tcatactttg tatcattttg ttcctggta aatttttat ctcccaatgg gttgtatgct 180

ggaaaaatgg ttgtttgca tatgtaacct tactgaaaaa cgaaccatat atccactcct 240

cgtactacac tgtatgttaa gcagactggg gataaacttg gtgaaacttt tcacttgtat 300

gttgtgcac gacacctcac agtcaattaa gctctgaacc tggtaggact attttagca 360

aatagccat agttgagaga gagtctcgcg ccctcattga gaaatg 406

<210> 4686

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-045-Q1-E1-B1  
<400> 4686  
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ccgctaaggtaaaaacctcc ctttttgc aaaaagagaaaa ggaaagaagc aacaacgaaa 120  
cagtcttcac gtcctgcgtc ttgcgtggcc aacgtgaaga ataatcctac gagtgaaac 180  
caaagagaga agaccaacca aacgacgacc cctccaactc agaagcttag tatgacctct 240  
tctcttttg gggaatgct angaagtatg ctccccatgt ttttatttat gaactggttc 300  
aggaggaatc ccgagggaaag ggaaccagac aaagatgaga tagctcagaa gaagtgtcag 360  
aggcttqcgt qcaatattca agattgttg gaaaaaaaaacg actatcagca aagtatgtg 419

<210> 4687  
<211> 320  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-B10

<400> 4687

gaccacgcg tcagtgactg ctccaggaat tttcatttgtt ttttatggag gttttgttac 60  
tattgcttgg ttctatgcc a tgtttatgtat gcctgaaacc aaagataaga ctttggaaaga 120  
gattgatgct ttgtttcca tgcgtatgcc t gatTTAGCG aaacataatt gggataatgt 180  
gaagaagaca gtggatgatc tcttgattt taggttgaga gaagtttgg a agtttacaa 240  
gtgagcgatg attgttattg tttgatTTT tgagtacttt atttgttgg taacaataaa 300  
agcataaaatg cgtagcataac 320

<210>	4688
<211>	403
<212>	DNA
<213>	Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-045-Q1-E1-B8

<400> 4688

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ctgctctgag ttgcctttt ctctctgtcc ttatcgctgc cgcagttgca gccgacgtag 120

tttcagagga gagatgggga tatgctcagc agacccaaca acagcaacag tgccaacaag 180  
tatgtaaaca gtatgcatac tatcagagtc cagtctgcac ttccgttaacc acacagagcc 240  
catactggac ccaatgctcg aagactgtgc aaaccttgc cncaagccag tgcagtactt 300  
atacccaatc tccttagatgg acctattgca gcacctacac aaccattagc gtaccatctc 360  
aatgcagcaa ggccgtgact acctatattc aaacctgctg tgc 403

<210> 4689

<211> 318

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-C12

<400> 4689

gacccacgac tcaggtgatt gttgccatgg tttgtttga catgatttcg aatctgatag 60  
aaaacgctcg agcaccaaca gagcaagagg tggagcagga agcaaatgac aggatttac 120  
gacgctaattg aacaacatga cctggcga tatatgtgga gttcacctgt gaaaccacca 180  
tactggtgga agtcggatgc ctttcaagaa cattataagc aattgtgtca cagacataag 240

cagcgcctca agacccctgc agagcgaacg ccagaagata tgggagaaat gtacagatcg 300

aataaccttt gttaccgc

318

<210> 4690

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-045-Q1-E1-C2

<400> 4690

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gagaaaggaa aaaactgagt atcaggaaga aaagaaggag tanatgagga aagaaagata 120  
aggaagtaag agtaagagaa ggagtaatgt gaatgaaagc aggaaagtat ttgaagaaaa 180  
aagtgtaaac cgcttacatt ttgcataatg tcccagcag tgaaagagga accaaaa 237

<210> 4691

<211> 419  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-D1

<400> 4691

aattcccgcc tcgacccacg cgtaaggagc gagaggcaag gtgttatcat ggcaaacgca 60  
gtgagaattt gtgctgaagg ttacaggta aagttggacg gtgcagttca agagatagac 120  
ggtcgttctg tagttcttgtt agatgtggat agtattaccc ctctcatgtt tggaggtgt 180  
atgaaagaaa aggccaaatt gttggatgcc aagtttcgaa ggaagtatta tgaggagaac 240  
aaggacttct tcttcttgct gactagagaa gataagaaaa tgtttgac gttgcaactt 300  
gccaggaaat atcagagct ggttagatgac caattcttga agggcttctt cgagaatgct 360  
ctggagtccg ctcagaagac gtattaattt gtcaagtagt gtgtatgtat gcgtttgaa 419

<210> 4692  
<211> 112  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-D5

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<400> 4692

acccacgcgt cagaacacat gcaagtaggt aaagcgaacg ggtgagtaaa gaggtgtgaa 60  
agagtggaaag aacatgaaag cacagaagaa tgtaagaaat gtttagagta aa 112

<210> 4693  
<211> 52  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-F10

<400> 4693

acgcgtcagg gaatatacgg gaaaggcagta tgagatgaaa gacaaacgac aa 52

<210> 4694  
<211> 230  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-045-Q1-E1-F5

<400> 4694

tcccgccga cccacgcgtc agagaaatcc gaaaggagta aaaaaaaaaga aaaagaagaa 60  
agaaaaaaaaag agaaaagccg tactgaagac cgacacaagt actcgangag aaaggagacc 120  
canattaagg tgagagaatg gacgataagg aactaagcaa aaggatatgg tatctgcngt 180  
agaacatatg aaagaaacag caacgactgt tttAACAAAA cacagcactc 230

<210> 4695  
<211> 253  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-G11

<400> 4695

acccacgcgt cagcgaacgc gtgggcccac tcttgggttg gaaaaagatt tgaaaaaaat 60  
ggaataaggg ttgaaaggca attcaaacctt attgaaacctt ggaactcctc gaaagctata 120  
taatgtcgat atgcaggaaa gaagaaggta aaggaagaga aggaagaagc acatagggac 180  
tatgagcgat aaggtggata gtcgagacgg aaaaagccca gaagccaaaga taatgtatca 240

aagtaaaagaa tga 253

<210> 4696  
<211> 274  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-H11

<400> 4696

gaccCACGCG tcagcggacg cgtggcggaa cccttgggtt aacgttacct aatggattgg 60  
tggatggggc aaactcgtgg ttgggcttcc ttttggaaa caaaaaaaaaag tcgtctctgg 120  
aaaaatggca agtagagttac ctggaaataa cttcgtatg cctttgggtgg tggtggcggt 180  
ggtgtcccta gtggcctgc ggttcgagtt gcaggttgg ctattgcagg tatcgctaca 240  
gctgccattt gttataaata tggttataac aacg 274

<210> 4697  
<211> 378  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-H5

<400> 4697

agcccacgctc tccggtaaaat tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg 60  
atgaaaatgt aagcgagtaa aagatgaggat atagagaatg gcggtcctaa cggttaaggat 120  
ccaaaggtag cgaagtaaat agacgttga aaggcgtcca gtatgaaagg agaaacgagt 180  
gtacgtactgt ctatcgatcc aactcagcga aacagcaata actgtaaaa tgcatgaaac 240  
tagcgttagg acgaaaagac cccataattc ttgacttagat aggttttaggg aggagagaga 300  
atcatgaagt agaggaggtg gggtaagaga taaaagacca ctgcattgagg ataaggaatc 360  
taactgatgtt agaaaaat 378

<210> 4698  
<211> 108  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-H7

<400> 4698

agcccacgctc tccggaaaat ttttgaata aagcagcaat gccgctctat catcgtaaaa 60  
aaaaaaaaaaa aaattaaaaat aaaaaaaaaa aaaaattaaa aataataa 108

<210> 4699  
<211> 364  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-A10

<400> 4699

aattccccgc tcgacccacg acgtcaggta tttgttgtct cattcgagcg acgaatcaac 60  
ttgttagtgca gcaagacaag aaggaaatat ttgcgtgggt agattatcgc caactgcagt 120  
tgactctact tgggtttgtt acaactggca acttgctcaa gtgtctgaac ctatcgctac 180  
ggttgaaaat attatatgcg atgatgaagc caagtcgatt ttacgagttt tggagcaact 240

ttctggcagc accactatgg aaggaagaac agataactct tttgaattgt cgagtacttt 300  
ggaagagaaa gtttagaaag atgaaaacaa gcaagccgat ggtgctccgt ctcccagtgt 360  
tgtg 364

<210> 4700  
<211> 195  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-A11  
<400> 4700

gacccacacg tcaattcttg actagataag ttttagggagg agagagaatc atgaagtaga 60  
ggaggtgggg taagagatga aagaccactg catgaggata aggaatctaa ctgagtaagg 120  
aaaataagct taagcttagtt tggctgggga agtaaagcct aagaaagagt aaattaggca 180  
agcaaaggca tgaga 195

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<210> 4701  
<211> 453  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-A6  
<400> 4701

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gttgtcaggc agaagcgaaa tggatgcttc cacagcagta tggaaaaata atcaacactg 120  
cctccatgtc agcacatatt gtgaatcatc ctcacaaaaca ggccgcctat aatgcagcca 180  
aagcaggtgt agtacaactt accagaactt tgggagcaga atgggctgtat cgaggagttc 240  
atgtcaattt catttcgcct ggttatatta atactcctat tacgaataact cctgccttga 300  
aacccggcat ggactattgg attcgactaa ctccagccaa tcgggtgggt gaagttgaag 360  
acttgcaagg tccagtagtg ttttagcaa gtgatgcttc tagtttatg ttgggtggag 420  
aaattattcc tgacggaggc tttactcttt ggt 453

<210> 4702  
<211> 205

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B1

<400> 4702

aggtagacgtt caggaattcc cggggccgacg tacaaatcaa agtcaacacctg gcttcctcc 60  
tgtatgaaaac gggaaaggaa ggaacgtttc caaaaacctt tgcgctcaac aagctcctcg 120  
ggcgaagaca tttttccgcc tcctttccaa ccgggaaaac cttaatcccc 180  
aatggaccgg aacctgaaac ctttt 205

<210> 4703  
<211> 365  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B10

<400> 4703

cgaccacac gtcagcaagt atttgccata gaagaagaga aaaacaaggg ctggttgttt 60  
ttatcttagt ctatggat acaaaccgaa ggaagaattt gaatatggag atattgtggg 120  
aactggata gctagagtat cggtgtata gcgtgttata tcccgactcg aacaacttta 180  
catggcaata aaagcagttt ttcaaggaaa aaaaaaaaaa aaaaaataaa aaaaaaaaaa 240  
aaggcggacg caccaaaaga atcaaacttt cgttagcatg catgctacgt catagactct 300  
tcaattctgt caccaagtt caatataatg gacgtcctt tacaacattt ttactggaa 360  
aaccc 365

<210> 4704  
<211> 352  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B11

<400> 4704

cccggtcga cccacacgtc agtgccaaag tgtagcaaca agtagatgaa gttacttccg 60  
ttatgaggta caatataagac gaagcactaa atagaggaa ggcactcgat gtgcttgg 120  
acaaagcgaa agatttacga ggcggtgcca gtcaatttca aaaatttca acgcaactta 180

aacgaaactt ttgtaaacga aatatgaagg tcatcatttgcattgtaata gttgttcttc 240  
ttattgcct tgctatcatc cttggagtag tgttaacgca acgaaatagc agtagtagtg 300  
gaagccgtag tggtgaaac actagtggca acacaacgag aattttatac ta 352

<210> 4705

<211> 440

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B6

<400> 4705

attccccggc cgacccacgc gtccacccac gcgtccggaa gtggaaatag tatttggaaag 60  
tttggtaat gcatatgcaa ggaaccaggattgaaggcagcagtttgcgatacacat 120  
attagggttt gcgttaacag aggcagtagg actgtttgca ttgatgatga gttttttgtat 180  
actgtttca tagtatagga gaaacaagaa gtagaagaga aataaaagag acagaagagg 240  
agttatgaga gaaaagatgg aagtaataga agtgtaatggatgaaatataatgat 300  
gaaagaacga atggagaata taaggaagga ttacatgaag gaggagataa tacgagaaat 360

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gataagggtgg atatatataatcgataataag tgtgatagta atatacagga cgagaaagag 420  
acgaaagacg tttatgatgc 440

<210> 4706

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B7

<400> 4706

ggtagggc aggaattccc gggccgaccc acgcgtcaga gcaagcgtga accgtgaggg 60  
tagttcatca tggtgagac aaaacctcaa gatggtgtta gtgcttctct ttggactgtt 120  
cgtctttcc tctacacagt tattttgc ttctctgcca ctatcattgg cttgaatgg 180  
cgtaaagcag acaacatag gaacgacagc ttattctatg atggaaagta cattaacttt 240  
tgtgcttatt ctgcctttc tggtagaa ggaggggacc atggagcgtg taaatatgtc 300  
atggcggtgg cgtctataag tttgattcta gtctttct tggctttt tacatttgta 360

gatgcgttgt atcctattct taccaagttt tggtttattt aattgggtat caacgtt 420  
caaacaatgt ggtgggttggt tgg 443

<210> 4707  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-C2

<400> 4707

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ataaaccagca taacttggct acaacttagta gcgtgttga tactggtaat gaccatttt 120  
ctactagcga gggaaagcgag tcacctactt tggcattgg acacttggac agaattaaac 180  
ctttgaacac tgcacctgcg ttgggtgtct aagcgccctgg ttaatggaac tctccagaat 240  
atttgtttgc ggaagactat accgacgatc gtaaaaagtc ttggggagaa cagctcatgt 300  
attggacagg actttcttat ctgactggtg cagtgactgg tggttcgtat ggacacgtag 360  
aacgacttcg gtcacatcacgt ggcacaagtt gggaaactacg aattaatgct atattgaatg 420

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ca 422

<210> 4708  
<211> 348  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-C6

<400> 4708

agaacaaaact acaaaaagaaa caacgaagat gggaaacaaaa aggaaaatat catagaagac 60  
gtgggaagaa atgagctgca caatatttaa ttccctgctta tgtacaaact tcataattaca 120  
tgattactag aaatgtttcc ttgaataaaat tcttacgggt aatccccaaa aaaaaaaaaaa 180  
gaaaaaaaaa gaaaaaaaaa gaaaaaaaaa taaataaaaa gaaaaaaaaa aaaaaaaaaat 240  
aacaaaacaaa aaaaaaaaaat aaaaggggcg gccgccccaa aggttccaag cttacgtacc 300  
cttgaatgca acgtcaaaagt cttcaaaag tgtcacctaa tttcaatt 348

<210> 4709  
<211> 353  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-046-Q1-E1-C7

<400> 4709

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cttcacttta cgtcaatgtc tttctgtttt ttccctatt ttcgcagttt ctttctcga 120  
caacgttttg gttatagaga agtgttctt tagtgtcata aacactattt tggatgcacc 180  
tccttccaag tcgcttagtg aagcttctgt cggtcaagtt gcagagtatc ttctctactt 240  
gacaaacgct tctatttcct atcatagaaa taaagagtcc agcgatgttt atgaacaggt 300  
ggttcatgtt catgagagaa tttgttgcgg tcttcntcat gctattatag acg 353

<210> 4710  
<211> 377  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-C9

<400> 4710

tcccggtctcg acccacacgt cagggcacaa aaggatagac aagaaacaga attggataaa 60  
gcctcgagaa cttgtccttg tgttaagggt tgtggctact atggaacatc gtcgaccttg 120  
aatatgtgct ctaaatgcta cagagaacac caacgtcaag agcaacaagg acaaatggaa 180  
tcgggtggtc cacaacacca gcttcaagaa gagtcgttag acaaagcaga agaccgtttg 240  
caaaatacta cggaccttaa acatgttagat ctccaacaag atacgtgtgt ctcagaagct 300  
ataacggggc agtcggagtt gcaattggaa gataccgctg gggcttccct tgaagcaaat 360  
agcaagactt ccttttc 377

<210> 4711  
<211> 441  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-046-Q1-E1-D1

<400> 4711

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gaaccaattc ttttggtcca aacataggca ggtacccaat ttccaattgt ctttcattct 120  
cagaaatact tcaagcgtca actagactat ctgcgttgct ttctagaata tgaaaaagt 180  
tcttctcagc agtatttagca tccacanaac tagactccat atcaatccag tctgattccg 240  
tcttgcttct atctatatca ctgtccaagt tgctctgtt tgtttggt ggtgtaacag 300  
acacgctacg cctatcggtt aaagcaactg taacgctctt taaaggcctc ttgaacgttg 360  
ggtctcccgat gatttgcgc aaagtaagag ataaactaag aactgcattc gtacgacttt 420  
cttggagcaa aaaatttta c 441

<210> 4712  
<211> 267  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D10  
<400> 4712

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aatgcccgcc tcgaccacaca agtcagagta ttggaaatgc ctgaaaacca agtgtttatt 60  
ttaagaggag gattggagga ttggaaagaaa catggctatc ctattgccag tagccacgat 120  
gataatagtt ggatgccatc cgagaccaac aagactttt tgcacgata tcaaccacag 180  
tttggcccg attagttgct aataaaagag tatgtccagt ctccaagaga ttgtgtata 240  
ttggatgctc gttcctctgg tcgtttt 267

<210> 4713  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D12  
<400> 4713

aattcccgcc tcgaccacaca agtcagcgcg tctggccgaa tgaaaactgc ggtccttggg 60  
aagaacttta tggcattcac tttttgatc aatatctgca gaggactgct cttcttcgag 120  
gtaagttga ttttcagtga tagataatag cagccgagga ataatcattt ttaggtgtaa 180

aacttgctga aaaacttgggt tataacaata ttgccaaaca ttatcaaagg gcagcggaaa 240  
acattactca agtattgcca tcctatatgg caaaggactt tggcatcggt tggaatctg 300  
tcaacactac tcacgacacc aatcatgaaa ccttttgga tacatcgact atcttggaa 360  
ttcttcatgg atacaatcac gaagaagtat ttgcggccaa caatgaat 408

<210> 4714

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D3

<400> 4714

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atcttcttct tagaatgaaa ttgagttatcg cgaatccgc tactgggtgt cacaaggata 120  
tataagtggaa cgacgattga aaacttcatg cgtttttga caagagactg gtgcaagaag 180  
tcacaggaga cgctctaaga tacgacttta acggatataat tttcaagatc atgggtggac 240  
aagataagga aggattcgct atgagacaga gactcttgac cactggcgt gtaagactct 300

tattaccgaa aggagactct gggtgccttag ggtactgtat gagagactgt gaaagaagac 360

gaaagatcggt tcgcgggttc attgtatctc catatatacg tgggttgaac ctcatcattt 420

tgtgaaatg caattacgat at 442

<210> 4715

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D5

<400> 4715

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ttgaaacaaa atccatcgac atgacttagta caggaaggaa tattgcgaag aaaatacaac 120  
ctcgagaaca aatggacggt gaaggagctc gtgttttcg ttgcatttgtt actgcttccc 180  
ttcgaaacct tgacccttgc ctcatgttgg atgagttccg tgtccaagca ccagcagggtt 240  
ttcctgacca tccacatcga gggtttgaga ctgtcactta tatgttggag ggttatattta 300

cgcacgacga taatcacgga cactcgggag ttatacgcc aggtgatgtt caatggatga 360  
ctgcaggtag aggaataatt cacagcggaaa tgcctcatgg gaaacaagaa ggtcatgggt 420  
tacagctttg ggtcaattt 439

<210> 4716  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D9  
<400> 4716

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cgcttgcctt caggtttag aagtgtcaa ctcgttccag agcaggaaga tgcgacaact 120  
ttgcaactag gagaagactt ttcgagtgaa aaagcccagc cacttactat tagtgaagtt 180  
tttattcttt tgtctcgaaa gagagatatg atgcgagagt tggaaggccc gagagcagat 240  
gaatttcaa gtgtcttaa gaaatttttgaatatgttag agcgcttga ccgttacaag 300  
ggtcttgaag ctgcaaccaa cgtccgaaac ctgttgcaac gatatgataaa tttggatccc 360

tttggaaatgg cttgtttggc taatctttgc cctgcagatg tatgaatttat gtttagtttcg 420  
agggtttaaa ctgaagttgt tgt 443

<210> 4717  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E11  
<400> 4717

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actgcgccta agaagaaata tgttttcttg tattatagct atgaatttgtt ctggatgtga 120  
aaaggaacca gagatttcca atgttcgcct atttttctc cgtttattag tcggactttt 180  
gtcaaggagt acacgagtcg accaagattt aaaagaagct tttgaaaaag aattcggagg 240  
ggacaccaac tttccctaa atcgctatgt gtgctggcga ctaggttacc aactggactt 300  
gttggggaat tcacctagaa aacaattatt atatggcct atggccatgt tattcggttt 360

tacttgcgca agtaatctca ctctgatttt cggagcgctc tcctttctgg accctatgaa 420  
tgctgga 427

<210> 4718  
<211> 326  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E12

<400> 4718

aatgcccgcc tcgaccacaca cgtccgattt gttgattatc gcaccatttt gtggaaagga 60  
tgagtaactc ggacaacgca gagcttaggc caagtttcc tgtgccaagc ttggagaatc 120  
ctgctaagaa aaagttaaat tcgtcaggaa gctaccttgt gattggaggt tgtttggcaa 180  
ccgcccgtgt attgttttgtt ggtttgataa gtttcgccc tggaaactct cgcaactctc 240  
aaatgttat gcgtgctcgt gttctgacac aaggtgcaac cttggatgcg gtagcatgta 300  
ctttctggag tgcaacaaat atgaaa 326

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<210> 4719

<211> 415  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E5

<400> 4719

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ttcttgcctt cgacgcggat tggaggcctt ttcttccttg cgtcatcatg gtatccaaaa 120  
gtagggacgt acctctgaga ctaaaagaaa aggccgcaag gaaagaagca cagttgaaga 180  
ccatgtctga taagccatcg agagccaaag atgaatttgtt acccgacgga agacataccg 240  
aaagtagaat tttacggaa aaaatcgacg aagcgtacca agttgcgggc atccatcaccg 300  
cctggggacag tcttgatcct catgtctggc cgcttccgat gaaggagggt tatcttctg 360  
aacagactca caggttagact aatattggtg acacgacctt ttgacttgaa tggcg 415

<210> 4720  
<211> 448

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E6

<400> 4720

tacagggtcag gaattcccg gcccggaccac gcgtcagcaa caattggttg tgggtttgg 60  
gcttttgg ttggggtttgg tttgggtgaa gatggcgac tatcaacatt accgagctag 120  
tacagcgggt atagctttgg gagaagcaact ttctgaactc aaggaacaga acctctttac 180  
ggaagcgaa gaagatgtga ttggaggaa gtttgaccgt gccatgacag aagcccttgc 240  
gtccaacggt gtggatacac accttacggt gaaagggagt cttcatcact atcgattctg 300  
tgataatgtg tggcaattct tcgtgaaaga cgacacaagtg aaatttgaca aaagttcgga 360  
ttttaactccc gctggttatc tgaaagtagt tgcttgtgat tatgtaaagc caaccaaccc 420  
aaagtcttagt taatttgaa gccaatc 448

<210> 4721  
<211> 196  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-046-Q1-E1-E7

<400> 4721

ggtactagtc aggaattccc gggccgaccc acgcgtccac ccacgcgtcc gccggacgcgt 60  
gggtttgatt ttctctttgg gagccgattt cggccgtcggtt gccaaggatt gaaaactgtga 120  
agaagtccctt ttctgtaccaa aattgcattt tattttgaac ctggataaa taaaagccag 180  
gaacaattgg aacttc 196

<210> 4722  
<211> 462  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F1

<400> 4722

ccggggccgac ccacgcgtcc acatgaacat ttgttcatta gagattaaca cgcaagcaaa 60  
tggata tcaactttcc aaatccctt aacatataaga agccaaaggaa agaaggctcc 120

cttggtaaaa cctttaaggt acaaggccat tcacaaaggc atctttctgc agaagaagaa 180  
tggctattac ttaatcaatt agactggata aagtctgaaa gtttccgggt ctctgtggat 240  
atggagaaaa tgccctggaaa tagagttgc tttagtacaag tgccatttca tgataaagca 300  
acgtttggag tggacgacgt attggaaatg atccatcagt tacgaacagg agaaggcgt 360  
aaccaacagc atattcgaaa tccttagattt gaagcagcgt ttgcttctca agcttgtcgc 420  
atgtctgtaa tgataggaac tccattagac cgctcgcaca tg 462

<210> 4723

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F10

<400> 4723

aattcccccgc tcgacccaca cgtacggata aagagtaaat atgtgttgca cgggtaccgt 60  
agcaaccgct tgttcgtctg gccagctggc cgtgtcattt tctctagcgt aagtttagctc 120  
cgtctaacaa gactaccaag ccacccggaa gtcgtcctga gtttgtatcg attggtaact 180

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caaatttact ttaaaaaatg tgacgcaagg acggtaggc tttcatcttt tcttttttc 240  
gtctttgggtt tttcctgcta taacgcgggt ctcaagaaac tttagtgaa tccgaaccaa 300  
acgagcgatg ttttgcgttg acagatccat taggaagttt aaatggacag acgtcctttg 360  
gtccctccaa tgcccaacaa tttgcaaaag agatccgctc atgccatagg acaaaaacaac 420  
tagtcactga g 431

<210> 4724

<211> 302

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F12

<400> 4724

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gacacactag atcagagagt aacacatgca agtatgtaaa gcgaacgggt gagtaaagag 120  
gtgtgaaata gtgggagaac atgaaagcac agaagaatgt cagaaatggc tagagtaaaa 180

accatataag aagtttaagc gggaaatctga gacgaggaaa gccacattgg gactgagaaa 240  
aggtccaaac aagagaagtc agcagtgggg aaaattgggc aatgtacatg gaagtatgac 300  
cc 302

<210> 4725  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-046-Q1-E1-F4  
  
<400> 4725  
  
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actcaaatta aggtgagaga atggacgata acgaactaag caaaaggata tggtatctgc 120  
ggtagaacat atgaaagaag cagcaccgac tttagcaaa aaacacagca ctctgcagaa 180  
aagagaacat gtaaagtata gagtgtgcgg cctgccaaat agtagagaag aaatcgatga 240  
aagtgaaagc gagtaaaaga tgaggtatag agaatggcgg tcctaacggt aaggatccaa 300  
agtagcgaa gtaaatagac gtttggaaagg cgtccagttt gaaaggagaa acgagtgtag 360

cactgtctag tcgtccaact cagcgaaaca gcaataactg tgataatgca gtaaactagc 420  
actangacgg aaagacccca taat 444

<210> 4726  
<211> 316  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-046-Q1-E1-F6  
  
<400> 4726  
  
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atctaccatc tttgaaatcg acgccccatg ggaagcgtat ttatagtaag atagtttaggc 120  
gatttccgaa aagcagtagt tgacgtgaa atatatataat atatatataat atgatcgacg 180  
atatcgagaa tgtgttagaa attgtattga ttagaaaaatg ctttgaatat tcaattttt 240  
ttgttttgct gtaaaaaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 300

aaaaaaaaaaa agaaaa

316

<210> 4727  
<211> 411  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-046-Q1-E1-F8  
  
<400> 4727  
  
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tgcaaatatt cgtcaagaca cttaactggca agaccattac tttgaaagtt gagccttccg 120  
acactattga aaacgtaaag tccacaatac aagacaagga ggaaattcct cccgatcaac 180  
agcgtttgc atttgcaggc aagcaattgg aagatgaaag aactctatcg gactataata 240  
tacaaaagga atctaccttg cacttgggtgt tgagacttcg tggaggagct attccagaag 300  
gagatcctac tcgcggggag aagatattca agacaaagtg tgcgcaatgt catacttatg 360  
aaagtggcgg tattaacaaa caaggccccca acttgcacgg tctatggg a 411  
  
aaatcccgcc tcgacccacg acgtcagact ttttatttag gtgtcaccaaa cttgcaacga 60  
gactgggaaa tagaacaagt gtccagtcaa tcttgcaaa cactttgtg ccaaatacag 120  
agggtctgga tgagtcacta tcttctcaga atgtttgaa gcatcttcc ttggagaga 180  
atgtcgcttc gagtttgcg tggatggaa gcatgttcaac tcagaacaac tcaccctcga 240  
ggtagtgacg ccacaaagga cgataagctt gtcatatgt aactagctt ttggaaagaa 300  
ttcgacaagt ttgttcaaa atgtccttcc gtgaattttt gttcagctcg atgtgaaaga 360  
gacaagagag aacactttat ttcaaagcag agctagtaact gctgctg a 411

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<210> 4728  
<211> 411  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-046-Q1-E1-F9  
  
<400> 4728  
  
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gactgggaaa tagaacaagt gtccagtcaa tcttgcaaa cactttgtg ccaaatacag 120  
agggtctgga tgagtcacta tcttctcaga atgtttgaa gcatcttcc ttggagaga 180  
atgtcgcttc gagtttgcg tggatggaa gcatgttcaac tcagaacaac tcaccctcga 240  
ggtagtgacg ccacaaagga cgataagctt gtcatatgt aactagctt ttggaaagaa 300  
ttcgacaagt ttgttcaaa atgtccttcc gtgaattttt gttcagctcg atgtgaaaga 360  
gacaagagag aacactttat ttcaaagcag agctagtaact gctgctg a 411

<210> 4729  
<211> 436  
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-046-Q1-E1-G2

<400> 4729

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aattatgttag tggcaaggat agagcgtcc tgagttgcc ccaagtttc aaaagttcca 180  
aagacaaggg caatcttctc gctcgtaag gacaaggttc tattgaagcc ccaggtaaag 240  
ctgacagaat tgcaagacaa agagcaggac gtatccgtag tgtcgaagat gacgtcgtac 300  
cagaggaacc caactttcta gcaaagggttc ccaaacggga gcgagatggg agagcagctt 360  
ttcgtccttc aaagaagtca aaccctgtct cnctcgagc cactttagaa gatgtccttc 420  
tcaaaaattcc gaacag 436

<210> 4730

<211> 444

<212> DNA

<213> Cyanidium caldarium

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<223> Clone ID: LIB190-046-Q1-E1-G5

<400> 4730

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atgcagtaaa cttagcagtag gacggaaaga ccccataatt cttgactaga taggtttagg 120  
gaggagagag aatcatgaag tagaggaggt gggtaagag atgaaagacc actgcgttag 180  
gataaggaat ctaactgagt aaggaaaata agcttaagct agtttgctg gggaaagtaaa 240  
gcctaagaaa gagtaaatta ggcaagcaaa ggcgtgagag aagtataata gcagaagcat 300  
gcttgaagaa aaagaaaagag atttcagaaaa gggaaagaaaa gtcagctata gagaacaggt 360  
gaaggagaac tcaaaaagag gagagcacccg aacgatcgaa gaagaaactt tggggtaac 420  
aggtaatgt ggtgttagag aacg 444

<210> 4731

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G6  
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caaagaacct cacaaactct atgagtata cacccgactt ttactggca caacgcaaag 120  
acaaaactgtt tcttaccatc gacgttccca acgtggacaa aaaccaagtt tctattgagc 180  
tcacagacga cggttaaactt agttttaaag gtcgaggtgg agagttgcac gaaaaagcgg 240  
actatgaact ccacttggaa ctgttacatc ccatcaaggc agaggagtcc aagtattctg 300  
tgacagctag aaatatacgg tttgttattt tgaaaaagga atcggggtcg tattggaaa 360  
ggttgttcaa acaaccgggg aagaacatct actgcaaagt ggactggaa cactggaagg 420  
acgaagactc cgaagatgaa ttgcac 446

<210> 4732  
<211> 432  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-046-Q1-E1-G8

<400> 4732  
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acgcagcaact taccgcaaac cctttgaagg tgaaaacctt aacatcctt tttggttta 120  
ctcttaggaga tttgatagcc cagcccccg acatgttgc agggaagcct tgggattata 180  
tgagaactgc ccgtttca gctttggtt tgtgcataca cggccgatc gggcactatt 240  
ggtatcagtt tttagatagg acggttatga ccaacgcgcc caagtccggg atcgcagttg 300  
ccactaagac agcaatagat cagttctt gggcgccaat atttacttcc atattttct 360  
cctttatgaa aactgtggac ggccaccctg atcaggttgt acatgaagtg aagacaaagt 420  
tgtggccaaa ca 432

<210> 4733  
<211> 253  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-046-Q1-E1-H6

<400> 4733

tcccgggccc acccaagcgt cagcccacgc gtccgcccac gcgtccgccc acgcgtccgc 60  
ccacgcgtcc gcccacgcgt ccgcccacgc gtccggagcg agaagggtgga tagtcgagag 120  
ggaaaaagcc cagaagccaa gataaggat caaagtaaaag aaagaaggaa aaggagaaga 180  
agagagggta cgcttagaag cagcaaacc a gagaggaaag cgtaaagca taaaagaaaa 240  
gaaatccgaa aaa 253

<210> 4734

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H7

<400> 4734

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gcccacgcgt ccggaaatta ttagaacgac agaaagaagg caaagaaaaa ttaagacaat 120  
tggaaaaagt tcgtctgtca ccggaagctt ttgcagcagt agttgctcag aaattttaag 180  
acaagaaaact ttattcttat aagaatcttt ttgatatttt cagggatgta tagcagcaat 240  
gtccttatta ctagacctga ggataggtcg aagaggccgt ggatacattg gtcgtgttca 300  
acttggtttg actttgtgga ctcaacgata gtcttacgtg tatccctgcc tttgaatatt 360  
tataaactat taggagtaaa agcatcagag aaccaatcaa ggataaccaa gcaaatgcta 420  
ctgataactgg agtattgaca ct 442

<210> 4735

<211> 357

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H8

<400> 4735

tcccgggccc acccacgcgt cagggtgaa aggacacgaac gggtcttgtt tcaaaccgccc 60  
accatatgga gaattataag aagacagaag tttgggaga aggtacttat ggaaagggtgt 120  
ataaaagctca agatattaga acaaacgaaa ttgttgact gaaaaagacc cttttggtaa 180

acgaagacga aggcgtcccc gcaactactc tgagagaagt gtctatctta agagcacttt 240  
cagattgtcc ctacatcgta aaactatctg acgttcttca cactgcatcc agaaatggta 300  
aacctgtgtt gtacttggtt tttgaatact tggAACACGA tctcaAGCAC tatATGA 357

<210> 4736  
<211> 357  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-046-Q1-E1-H9  
<400> 4736

aatGCCGGG tcgaccaca cgtcagccca cgCGTCCGCC cacgcgtccg CGCCAAAAGC 60  
tggAAgtgag cgcttcgctg atcctgattt .cgagcactaa ctgttttagt ctttttacc 120  
gtcatgtgga actgttgagg ctatgtgggg ctcagaattt caaattatgg aagaagaagg 180  
tgatgaagac ggctactcga cacctacttc gcaaacaata agagtctatc cagataggcc 240  
accccccacct cctagaaaga agaggtataa gaagtccgt aggatggca agaacttgga 300  
gattggagat agtgagttgc agtgtaagac tctccttgat tcggacttgt ctgttcc 357

<210> 4737  
<211> 412  
<212> DNA  
<213> Cyanidium caldarium  
<223> unsure at all n locations  
<223> Clone ID: LIB190-047-Q1-E1-A4  
<400> 4737

gacncacgcg tcagccaaca cgatcgacc actcgtccaa cacacagcat aactggcaat 60  
ggcactgtgc acaatcagac tgtagacaat actgttgaag aatattgatc atgtaatgaa 120  
agtcattcttca tcattgacac ggaatttgac catccttta gaccattacc gaggatagag 180  
ggacattacg atggcctgct gccaagtgac gaggcttctc gaatagacct gcactaatgt 240  
cgtgcgaaca ctctgttagtc atccgtctca agttttgatc aaataggttt atccaacgtg 300  
ttgttgacaca gactagtctc tacgacccat ccctagccta gtatgtcata tgtaacttca 360  
ctgtcacgca ctggtccaca cgcatccaa atcttaatca gtcaagcata ga 412

<210> 4738  
<211> 402  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-B11

<400> 4738

acccacgcgt cagcccacgc gtccgtacaa atttggtcat gttcctgtc gttggtagac 60  
ttgcaacatt ctatgcaaag aaacaacttt cgccatgcgt ttcagttatt cctaaagtaa 120  
agtactgtgg agaatgtaga ctttgctgta aaaagtttag ttacaacctg gtgaaacgtt 180  
ccattcggtt ctatggtgt tccagtggac cgccctgttc ggaaaccaca gggcgtctg 240  
ctacgaaatc ttttgaagta aatcagagtg aaccaatttt tattaccga gtcaaggaac 300  
ttgctgaaga atctgccctt gagttgagct taactattca aagcggtcg tggaccgggtg 360  
ggaaactagt agtacatatt ggtcacgccc acgcagagag ga 402

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<210> 4739  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-047-Q1-E1-B4

<400> 4739

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tgccgtaagg gcaacttac atgggtgtctc ggcagcattt ggcaaagctg gtgctgccat 120  
tggaacacaa gtattcaatc cactgaagaa gataagtcca gtgaatggac cacgtgtgt 180  
gttcattttc tgggtggtc tctccttat tggagctatc ttgacttata tttgcattccc 240  
tgataacaag aagaagccat tggaggttct cgatatggag tttgaaaggt attgtctgga 300  
gcacggcgtg gaattgaagt acttgcaacc atccattat tcaaagtact ttacttcgag 360  
tgactctgat gagaaagctc gcatgaatga gaatgaaaca gaagataagg gtantgtgc 420  
cg 422

<210> 4740  
<211> 421

<212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-047-Q1-E1-C10  
 <400> 4740

cccggcccga cccacgcgtc agaaaaacc ctggggtgga acaaagagca ccgaaagaca 60  
 cccaaggcgat gaccgtacaa gtcaccgaca ctttggaaaa gaaagccact ttatatcaac 120  
 aactttgtga agctggagtg gatgaggatt ccgagtataat ggttagattt gaacgcaagt 180  
 atttggataa tgaagaacaa ccaccaactc aagtatcgga ttggatggtt gagtgaaag 240  
 tggcagattc gaaacaaagt gacgaaaacc catcatcgga tgcatttcct tgtcatatat 300  
 taccccattc ggatatggaa acctatagaa agttgggtgc ggaagagtgg aatcgctcg 360  
 tagatacaac cttgtggtgg aagaaacatg gttttctatt tggcggtatt cctaaagaac 420  
 a 421

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<210> 4741  
 <211> 339  
 <212> DNA  
 <213> Cyanidium caldarium

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<223> Clone ID: LIB190-047-Q1-E1-C7  
 <400> 4741

gacccacacg taaggtccaa caatctgttag ccccagctcc tgcacccttcc tggcgtcagtg 60  
 ttccagtc当地 gtgttgttatt gagtgctcat ctgtctacca gcaagtatct caacaagttc 120  
 ctcaacaagt tcctcaacaa gtgtctcaac aagcacctca aacacaacaa gtctcatctc 180  
 agtctgctta ttaagtgaag ttgttagggtc aaggtgccca acaattcaga ataaacttgt 240  
 gttttggcta acaaaaaagg aatcaatcaa aaaaaattca aaataaaaag ccactggaa 300  
 aaagaataaa ttgggtttt gagcaataaa atgaaagca 339

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<210> 4742  
 <211> 301  
 <212> DNA  
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-D5  
 <400> 4742

ggtacaggta acgaattccc gggctcgacc cacgcgtaag cccacgcgtc cgcgatatta 60  
gtctcgactt ttctggagct ccagagtgga gagtgtcaag gagctgaaca aaattatcac 120  
aggctttctt gtgcataact atgatcggt cgaaaaaa acgagcgata gtgactggca 180  
agtccgtgaa gttcgatct tcattgctct gcagcgaaaa agaatgcttc gagttctact 240  
ttgtatgtat caacaactct ttgatttggt tcatgacaaa agctctcccc tcggaatggg 300  
t 301

<210> 4743  
<211> 197  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-D7  
<400> 4743

cgaccacac gtaagccac gcgtccgcgg acgcgtggaa aaaaaaaca aaaaaaaaata 60  
aaataaaaaa aatcaaaaaa aagaaaataa acaaagaaaa gaaaataggg cgccctccca 120  
aaaggatcca accttacata catgtgcata cgacttcata actcttctat atttcaccc 180

aaattcaatt gacttagt 197

<210> 4744  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-D8  
<400> 4744

aattccggc tcgacccacg cgtacgtctg tcttcaagtt tatgtacgca aactatgaca 60  
accaaggaaa ttgcataacct tgaaaagaga tgcaagatc tttggatttt ttctggagag 120  
tcctaaactg gactcagtga aagctgccac tggcagcag aggcttgtga acaaacaact 180  
ctggccgtct acagaaattt tggactgtat ttgcagttat tcaacaagca acagactacg 240  
agtttgcgt tcttggca cgaaaaagct tcacgttaca atcacgtatt catcgtgagc 300  
acagaaacta actaacgcag ttgagaatgt ctatTTTggctacagta gaagccggct 360  
tcggaccgag cttcgaagag caagactgtg attacaatca aaggaaca 408

<210> 4745  
<211> 413  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-047-Q1-E1-E4

<400> 4745

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tgcaaaagtt tcaaaaagaag atgtgttang agaaaattggc accggttata aaattgccat 120  
agaatccctg aacgaaggta gaattggaat angagctcaa atgattggac ttgcccagg 180  
tgcaatggat attatatttc catatctaca tgagagggaa cagttggct cccgtatcg 240  
tgattttcaa ggagtccagt ttcagtatgc acaagctcga gttgaattag aagcagcgcg 300  
agcgcttgtt tacaacgctg ctcgtatgaa tcatgcaggt atatctattc cgaaagaagc 360  
agccttcgc aaatactaca gtgcccagg tgccgaaaga attgcttcca aat 413

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<210> 4746  
<211> 356  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-E7

<400> 4746

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aggagaagca acaagctgaa gaagcacaaa tcaacgagga tccttcgggtt gtttttcagg 120  
gattacaacc aactcagcaa actccgatgc ttggatatgg aggaagacct tttggaaatg 180  
gaccttcgg atatccacaa actggccctt taagtttgc tcctgcacca ggtaccttc 240  
agtgaacggtt gtttagtattc atcctgttgt tgaaaaagacg atggaaaag gttttgttg 300  
aataaactag ttgtttgtt tgtaaaaaaaaa agaaagaatg aaaggaagtt atggca 356

<210> 4747  
<211> 404  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-E9  
<400> 4747

acccacgcgt cagcccacgc gtccggatac aaacaagtta tcaagagttg caaaaagtac 60  
aaaaaggtac gtggacatgg tcatgtatgc gatggttgtt atgtggtaa tttcttagaa 120  
ataggaaaac tttcaacaa caaacaaata ttaactgccc agttgagaga aaacgaacta 180  
gtgaaaacgg aagttgattt gttggacgag tcatcgacga tatacaagtt ggtgggtcct 240  
gtgatggtaa cccaagtaag tatgcatcca tcgataacta caaagacttg tgagtgtgt 300  
agtgtgtta ggattatgca gaagtgaaaa atacggtggc cagtcgcattc gattacctga 360  
aacagagct ggaaaaagtg gatagggaaat tgaaaagttt ggaa 404

<210> 4748  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F10  
<400> 4748

gaccacgcgt tcaggtttct tcaatggtcc cgggttgggt cccgttcctt gggtgattgt 60  
accggaaatc tatccctggt acgttcgttc gcaatgtctc acgttgaact cgtttgcatt 120  
ctacatgctg aatttcgtcg tttcttttc gtggccaacg atgctcaagt cgatgcattc 180  
acaaggcgcg tatagtttt ttgcaggctt tacgttggta tccacttgct ttatctattt 240  
gtttgttcct gaaaccaaag gcgtggaaat ggaagccatt caagaattgt ttcaatatcc 300  
attgtataact attgcaaaga agaatgtgag tgaaaccaa gcttatatga gcaaggttc 360  
ttggtttcgt cgatgggttg gaggtaatgg cggtgagcaa gagaagacat ttgaaaaaga 420  
cag 423

<210> 4749  
<211> 434  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F11  
<400> 4749

cccgccccga cccacgcgtc agcccacgct tccgcttga aaggaggtag tattcttggt 60  
agttcgaaag aagttcctcg agcgaaatct atagtagatg ccatatcgga taatggtttc 120  
aatcaagttt atattattgg agggggtcct atcgacggaa cgctgaaagc ttgcacaacaa 180  
atattcgaag agataaaaaag aaggaagatg aaatgcagtt tagcagtaat accaaaaacg 240  
atagataatg acataatgct aattcagcga tccttgggt tcgagacttc cattgaagca 300  
gcagcacagt cttacgtat tatacattgt gaggcttcat gttcttacca tgctgtggca 360  
gtgataacaag tacctggaag aaatagcggc tttttgcag tggagacagc tttggcttct 420  
cgtttagtcg atgc 434

<210> 4750

<211> 201

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F12

<400> 4750

ccaacgcgtc cgaaaatttg cgccccccga agtttgagg tgtaattgga aattttggta 60  
tttaaccgca atagtagtaa acgaattttg gaaaatggtg cgaataaaaca ctgtcaactt 120  
gttgtaacaa gataa 180  
aaaaaaaaaaaa aaaaaaaaaac a 201

<210> 4751

<211> 396

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F8

<400> 4751

aattccggc tcgacccacg cgtacgcggc cgctgggtt tactttgtac ttgattcttg 60  
taaaacatgt ctgacgatat tggtgccttg gttattgaca atggctcggt tatggtaaaa 120  
gcaggagttt caggggacga tgctcctcgt tccgtcttcc cttccatcgt aggtcgacca 180  
agacaccaag ctattatggt tggtatggta caaaaggaaa gttatgtggg tgatgaggct 240  
cagtctcgaa ggggtataact ctctttaaaa tacccaatag aacacggtat tgtcactaat 300

tgggatgata tggaaaagat atggcaccat actttctaca atgaacttcg aattgcacct 360  
gaagagcatc cagtccgtt gaccgaagct cctctc 396

<210> 4752  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G12

<400> 4752

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ttgcataatc atgaaagata tgagaaggct tatccgttcca agtttcccggt gtattatgt 120  
tccgggtatg gatgtcgtag agatgccgac ggtctttatt ttgttaactgg acgttttagat 180  
gatgtatca atgtaagtgg acatcgccatt ggaacagcag aagtagagtc tgcgttgatt 240  
gaaatcggtt cggccggcaga agcagcggtt gttccatttc ctcacgaatt gaaaggtaaa 300  
ggaatttgtt catttgtat tctgaaacaa ggaatcccggtt caactgctga actggaagaa 360  
gaaatgaaaa agacagttcg agtaaatatc ggacctattt cagttcctga acgagttat 420  
tt 422

<210> 4753  
<211> 321  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G5

<400> 4753

ccgggctcga cccacacgtc agcaacgaca aagccgtaga agctgcagat aggtatgtt 60  
tgcgttttat ccactcgatc tgcgtttttt gacacttggc tagtcgtaaa ttccgggcctc 120  
tgcgtttga ctttattcac ggaagagttc ttattctat tcggtcaccc accaacttta 180  
ctcgtattgt aaatagtaag aatgcgtatgc gtcgtatca tattattctt gccgttagac 240  
agtctttgtt aggagatgtt tgacgtgcag ttggatgcaa tggttgtct ttttaata 300  
aagtatgtat ttgttccaaa a 321

<210> 4754

<211> 429  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-047-Q1-E1-G6  
  
<400> 4754  
  
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aaaaaaaaaaa aaaaaagaaa gaaaaacaaa aagaaggcgc gccgatctac acgttcaagc 120  
catatatctaag ctcgtataca atgtcatata tcttcaattc agtcaccgac gttcaattca 180  
ctggccatcg ttaaacaaact tccttactgg aaaatacctg ccttgaccca aattaaccgc 240  
cctgcagcag atctccctt caccaggtgg ggtactatcg aacatgccaa cacttatcca 300  
cttcacaac agtttcgcac cctcaatgtc gaatgggatt caccctgttag cgtctcatta 360  
atcccccgag cttaactggt taacctcaga gtgacctata cacttgcac ttccctatcg 420  
tccgttccct 429

<210> 4755  
<211> 312  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G8  
  
<400> 4755  
  
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agctgcaggt ttggaaagtg cttagcgga ccatcgaaa agagaaaaaa tttaatttc 120  
taaaattcac gagcgcaatg ccaaaattga ggcgttgaa agtgaactaa agcaactgaa 180  
agggaaatt ccagcttcta caggtgatcc agttcaagat tggttgaatc aattggata 240  
agatgtatat gttacaagta cttgtggaa gagagagata gtcattgaa taaaattagt 300  
tctttccca ac 312

<210> 4756  
<211> 436  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G9

<400> 4756

ccggtaaga aatccgggc cgacccacgc gtcaggactt tgtgagactg tggagatgtat 60  
gacaaacatt ttacagacga aaatttcaga gaacaaaaat atgaaaacac aattggaaga 120  
gaaggatgct atgttataca acttacagat ggagacgaaa atgaaggatg ttcacaaaga 180  
acagaataac aaggacgcca gtaacagttt cttggctatt catggtgact caccgtttt 240  
gaacagactt cgcaagaaaa tagcggataa tcaagaaact tcgggcttcc agaagaagaa 300  
ctgggtgtaa aggtcgagta gtagagtaag tgtaaaaggg aaaggaaagg agagaaagag 360  
gaaaggatg aaatgcagag atctctagag aaaggcaaga aagaaaagaa aggaagacac 420  
agtaaatgag gcgaga 436

<210> 4757  
<211> 380  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-047-Q1-E1-H1  
<400> 4757

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aggagtggag taaaacagaaa aggaagtaaa aggaggaaat gaaggaaagt tatggcaaaa 120  
acacgtgcca gcagcagcgg taaaacgtgt gtagcaagcg tagagcagaa gaactgggtg 180  
taaaggctca gtatgtatgt aagtgtaaaa gggaaaggaa aggagagaaa gagggaaaggg 240  
atgaaatgca gagatctcta gagaaaggca agaaagaaaa gaaaggaaga cacagtaaat 300  
gaggcgagaa agcatangaa gtgaaacgga ttaagaaccc gtgtatctca tgcagtaaaa 360  
gaaagaatga gtaacaaaaaa 380

<210> 4758  
<211> 407  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H11

<400> 4758

gaccacgcgt cagcaatctc ttccatgc acaacagttt cgactcgagt tgaacgagtt 60

ttgtcgagga atatctttc ttttccatga aaagatggaa aatgcgattt cctatgatcc 120  
attaggaaca tcctcttctt ctccctcgacc tcatgccacc accacattaa tgctatatcc 180  
tcagcaagtc aatggtctat atcaacaatc cgtatcattg tgtgagacca tcgacgacaa 240  
agaacccgag tcgcaatgcc gtacattca aacgagtctg gtggcaaaca atttttttgg 300  
caacatcata ttgtccactt gtctcatcgg ggcaacctct ggcaattcgt ttggaagcaa 360  
cttgaatatc ccaccttata acagtagccaa gggaatagat ggctatc 407

<210> 4759

<211> 424

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H6

<400> 4759

tcccggtcg acccaagcgt acggaaacgc tgaggattgt tgtgggtgac ttgtggtagc 60  
agcagagctc ttggtaaat cctatcctt agtttcgtt caaacatatg tcgatgaatt 120  
gcttttgaa tagcagattt gtgagcctt acaaagttc tcacttggc tgtcacaaga 180  
gctttattca agtcttcct cgttgttgcgtctactgcccacaa ccgggttcagc 240  
tgttttgctg tcaaaaaggt ttccaaagcg tatccagtca gtacttttc aatagaagag 300  
aactgttcaa agctttattt gttgcttctg ttgcgcctt tgtgtctgtt tttcctgcaa 360  
aagcaagcca caactttaag cttactggac agtatgaaca agacgtccgt aatatgatag 420  
aaag 424

<210> 4760

<211> 417

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H9

<400> 4760

aggtagggt aagagatgaa agaccactgc atgaggataa ggaatcta ac tgagtaagga 60  
tccaaaggta gcgaagtaaa tagacgtttg aaaggcgtcc agtatgaaag gagaaacgag 120  
tgttagcactg tctagtcgtc caactcagcga aacacgcaat aactgtgaaa atgcagtaaa 180

ctagcagtag gacggaaaga ccccataatt ctgactaga taggtttagg gaggagagag 240  
aatcataata gaaatccgaa aggagttagaa gaaaagagag agaagaaaaga aaagaagaga 300  
aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa attaacgtga 360  
gagaatggac gataaggaac tacgcaaaat gatatggtat ctgcggtaga acatatg 417

<210> 4761  
<211> 454  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-A4

<400> 4761

attcacgggt cgacgcacgc gtccaatttt catcgagtat tatattccat gccgattgga 60  
gactccattt atgatgagcc tggatcacat ttggtagaaaa atattatgaa agaagccaaa 120  
gaaagaaaatg taaagataca tttccagta gattttgtag tagccgatcg catggctccc 180  
gatgcacata cagagatacg taccagagaa caaggtattc ctgagcatat gcaaggactg 240  
gattgtggac cacaaggat tcaacaattt attcaagtag tgcaacattg taatacaata 300  
gtgtggaatg gacctttggg tgtgtttgaa atggatatat ttgctcaagg aactcgtcaa 360  
gtaatggaag cacttgccaa tgccaataat attagtacta ttggaggtgg agatacagca 420  
actgctgctg ccaagtttgg actgggagaa aaga 454

<210> 4762  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-A5

<400> 4762

gggtcgactc acgcgtccat ggctcattct ttgtttgtt gtgtccaagt gagtgtgggg 60  
tttggcattt gacactataat ggcaagaagc gacgacgaat acgactattt gttcaaaattt 120  
gttcttattt gagattccgg ggtcgccaag tcaaacccttc tctcgccgtt tactcgcaac 180  
gagtttaacc tcgagtccaa gtccacgatt ggggtagaat ttgcgacgaa aagtgtccaa 240  
accgaaggaa agacaataaa agcacaaata tggacactg ctggtaaga acggtaaccgt 300

gctatcacct ctgcgtatta tcgaggtgcc gttggagcac ttctcgata cgatatctcg 360  
aagaaggaat cctttattgg tgtagaaaaaa tggctaaaag agcttcgtga tcacgcggat 420  
agtaatatag 430

<210> 4763  
<211> 237  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-A6

<400> 4763

ccgggtcgac tcacacgtcc gaagaagatt cctccaacat gtgcaatgag tgtccctgtt 60  
gcacgcgaga ctgcattcac catgggtgac aacgagtcca aaacaaacaa gtcagagtca 120  
tattccacct aaatttacaa tgtccttagg caaatgcatt cggcataccg ccatgatcca 180  
ccaacgcgat tagcatccag aacaccctgg agacctacac atttgacgt actgcca 237

<210> 4764  
<211> 384  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-A8

<400> 4764

ccgggtcgac ccacgacgac cgaccatgac tcggggttt gattggcgag ttcaagatcc 60  
taatccacat tcctagttt agtttctgag agatgtcgta gaggAACCTT ttgccccatcg 120  
tcattttgaa aacggttcta aaatagttac acaacaggag attcatcatt gcactttact 180  
tgttgaaatt tgcttggacc attgttcgat acattatgaa cagctacgtt ttacgcgttt 240  
aactagaatg ctatcttgca atcggtgtgc gcattgtgtt ctataccatc atctttgtcg 300  
atatacgtat atggatggat tccttcataa gttgaatcat caattggaca tcattacaga 360  
tgacttgcga gaatgtatga acaa 384

<210> 4765  
<211> 411  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B11

<400> 4765

ggtcgacgga cgcgccgac cacgagtccg cggacgcgtg ggcgatgatt cgatgcggca 60  
caagacagtt gtggtggcaa ctgcgcgtc gttatcatac aactactact gtccatagag 120  
tagcagcaga cgaagaaaag gaatctgtcg gtataaagcc taaacgttg catcagcctc 180  
ttggagttta tccacaagga accaatctgg aagaagttag agaaaagtgg caaagtgacg 240  
ctatggaact tatctcgaaa gtacctccga tagtagtcga tggctatgtc atagcgtgta 300  
atggaggccg cggccatta ggacatccaa tagaatatat tcgttggaa gcaccttatac 360  
cttcaacttg caaatattgt ggtttgcgt atatcaacaa agacactttt g 411

<210> 4766

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-048-Q1-E1-B12

<400> 4766

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gtggaccagg tagttggag caaacgcctt gaccttccac tatctgttac ttgcttcttt 120  
atatatttca tagtatttca tatagcttgt gccttcttg gtattgtga ctattggaag 180  
cttctgcgca agtacaagct gcacgaaagt gacgagaaga cctacctgca gttgctgcca 240  
agagttgtgt tcaatcaact ggcgtttac ttgacttagtt gctacatagg agaaaaatg 300  
ggttggatat tcagaacccc ttctaaagac aatgcttcc aactctggaa gttgcctatac 360  
tatcttactt tgtactcttt ctatcatgan attatattt actctgctca tcgttggctg 420  
ttgcac 426

<210> 4767

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-048-Q1-E1-B2

<400> 4767

gtcaagaatt tacgggtcga cgcacgcgtc caatcagcaa ttggaagaaa ctatcaactt 60  
taaaaaaacgt aaacttacaa aacctgcagg aataacaaaa caaacaagtt tacatgtatg 120  
ggtgcaaata gagaacaagt tggcagaccg taaagagctg ttaccagtgc ctcagttctt 180  
atgtcaacgg gactgctctc tgtcaccct tatcgagaa tacggattac ctcagttga 240  
aagacagtcc gtttcccga gtcttatgaa gccatcggt tcgcagcaat tgagtggaa 300  
ggcagcgaaa gctatcatgc anagactaca agtgctgctg caagat 346

<210> 4768  
<211> 304  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B5

<400> 4768

cccggtcga cccacacgtc caatcaaccg ccagtattga caaccctatc acagtagc 60  
tcatcctgag gaatctcagt gcctgactga tttcggcgta cggaatgtt actgttgact 120  
tgtctcggtt cagtaccttg aaagatagtt ctgcactgaa cttcgctac aggaacgtta 180  
agttagcctg tttcatggat acatgtctta gtttacgac acttacctt tgtcaatact 240  
ggtaatcatg tattctgttag gcgctcgac ttgaatgaaa tcgaaacatt ggagtcgtgc 300  
tttt 304

<210> 4769  
<211> 267  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B6

<400> 4769

cccacacgtc caaacaagcg ccagtattga catccctgtg acggtacgta taattccggc 60  
gcgtctcagt gcctgtctgg attcggcttt cggaatgtt actggtaact tgtcgggtt 120  
ctgtaccttg aaggacagat ttgcactgat cttcgac aggaacgtta agctggcgtg 180  
tttcatggat gacatgttt tagtttatg acacttatcc ctgttactt cagtcgaacg 240

tgtattctgt aggcgctcgg acttgct

267

<210> 4770

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B8

<400> 4770

acccacacgt ccaatggaat ttggtttcct tttggacatt tagaacgcgc ctgggttacc 60  
gattggccga tacaaggtca tccctatact tatggatatac ctagtttagt atatgcaagt 120  
caatgttcca gtgaaacttt tcgtcaacag tttgcaaggc ataagttggg agggctacat 180  
atatccaatt attgcttccc tccctttgtt atcttaaagg aactaacagg aacggaatat 240  
ggaaacgaaa ctcttcaaaa tatgacaaaag gaacagtgtc aacaacttgt ccacgactgc 300  
caaggccact cttttggaaag aactgttcct ttagaccaag tcccagaaga agacttggat 360  
gcagtgtata ttccttggtt tgtcaagtgt aaccctaaaa gatatccatc gttgatgcat 420  
caagtggatc tt 432

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<210> 4771

<211> 382

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-C10

<400> 4771

gtgtttgggc ggtggaaaac agagacagac gatggaggaa gaagatacga gttggagcac 60  
aatttatagg caatgtatag atacattgtt ttctcggtt acggcacttg gtttggctct 120  
ggaccattgg aataggccag cagaggagtg tcgacaactg gtagacgcgc ttcaacaagc 180  
catcctacaa gcagctcaag acaaccaact ttgtacagat ttcttggaga ctttatttga 240  
agaaaactttt gatatttttc aagtggatat agaggatgga agcatagaag aggttgcttc 300  
tttgctatgt actatgttcc aagactgtct ccaacgcac acgaaatcgt tgaccaggc 360  
tccgaaggct agatcgacaa ta 382

<210> 4772  
<211> 446  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-048-Q1-E1-C2

<400> 4772

gtcaagaatt cacgggtcga cgcacgcgtc cgaccacgctg tccgcccacg cgtccgcaaa 60  
cctcaagtgg atcatccac gttggtaaag atagacttgt ctcaaggcag cttaaagta 120  
ctccaagact gtgacagaga tttagaatgt gatcataata ccaagttca gttgaaactt 180  
attcagtagtgc gtctcttttc acctggttt tggacgagag aaaatgttct gctttctat 240  
ttggagctcg tgtcaggtgt attcataagg gacactctct acctttctca caacanaggt 300  
gaaaaaacatt tgtttgcgtat ttaaatgctg tttttggaga cacaagttcc actgtatgca 360  
gacataaaac caaactggaa gaaccaacac ttaccgttg gcctcaccgt caggtctttg 420  
tgtaaggaat atcaacgaca gtattc 446

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<210> 4773  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-C4

<400> 4773

ggtcgacgca cgcgtccgaa atatagaaga gcagcttcaa agtattccttgg aggagaaacc 60  
tcctgtcggtt acttttacgt ttggattgtt accttcagat tggttggaaa ggtttcaactc 120  
aaacgacatg ctcgtgggtg gcacgtgtac cacagttgaa gaagcgaagc aactcgagtc 180  
gtttaggcgtt gactttatgtt cagttcaggg agcagaagct ggtggacacc gaggaagttt 240  
tatttttcat ccaccgcatt caacagccaa acgttggttct tctatccgc tcgaaacctg 300  
tttggac tgcttatctg cagtaaaact gccttgata ccagcaggag gtataacaat 360  
tggaaaacaa attcggtcaa tttaaaaataa aggcccaatt ggtgtacaac taggcacgg 420  
at 422

<210> 4774

<211> 407  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-048-Q1-E1-C6  
  
<400> 4774  
  
ccgggtcgac ccaaacctcc agaggattcg aggagagaga cagacagatg gccaacgcctg 60  
gtcaagatgg ccttgcataa gtcaacaaac atagaaaagt aaagagattt caagaagata 120  
atattttgaa tagagcacta tcacaaccag gagatgtatt tctgtgcatt tgcaacatcc 180  
agttgttgtt gaatgcagaa agagctatta taggaaatat tacttgcca gaaagtatcg 240  
aattgtgtcg tctatttagct ggacatatacg cggttgggtt cgatgaacat ttggatgact 300  
ttcggttggaa agctatcttgggactat tttttttttt ttatttgag ttggatgtttt 360  
ttgaaggaga attggggta caagaatggaa atgaattggaa gaagata 407

<210> 4775  
<211> 229  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-D1

<400> 4775  
  
gcgtccgagg gttactcagc aagaatgccaa gtacgtccaa gagtcgtatt gtgtcgagta 60  
tgaagaatgt cagcaagtta cccaggaagt ttctccttca gaaattgtct actacgggtga 120  
atcttcttctt acgagtagtt actactacta gaacacttgtt gaaatgcgca aagtcgcaaa 180  
gttagagtgtt cttttttttttaaaactgtta cttttgtca aaaaccaac 229

<210> 4776  
<211> 350  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-048-Q1-E1-D3

<400> 4776

ggtcgacgca cgcgtccgac cacgagtcgg cccacgcgtc cgccccacgcgtc tccgggtttt 60  
actaccgaac gatattccat tgtacatgac tgaaagtaca gtanaaaagtt gatatgaaaa 120

ctgttgcttc ctttcanacg attacctta gtgtcattgt ctctcaatgg gaacacattc 180  
cccgacagtg tatacagaga cttccgaaag aactcttgac tatgctggta gaaagggtca 240  
caagggagaa gaaactgtcc tttggggttc tcaagtggtt ggagggaagt gagttcagt 300  
ttctcaattt gagcggtcaa ggtggaaaag tgaacgatga atggatgact 350

<210> 4777  
<211> 357  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-D5

<400> 4777

gaccacacacg tccacccacg cgtccgggtt ggaatgtttg aaaagcttgt tcgactcaac 60  
tatggtgat attgggtgaa gaatatcgga attagtccat attggaactt tcacttggtt 120  
ccacaactaa ggcttcaga tggaatcaat gtgccagtat tgccaaactt gcaagacctg 180  
ctgcctacag ttctgaaaat ggctggacac tccaaatggc acaatttcac gcgtaagtac 240  
atcttggtcc tatgacagtg tgagagtata aaggtcctgt ttttagaccag acggcacgtt 300

cagattcgaa gcgttcacat aatattcaa agatatctag aagtattaga tctgcag 357

<210> 4778  
<211> 392  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-E1

<400> 4778

attcacgggt cgacccacg cgtccgattt tgaggtggaa caggaagtgg tagtggata 60  
tgtgatccta aacgttccaa cgtgggtgaa taaaaaggac ttgacgaaag ctttggtaa 120  
agcatgcgtg aagttttagt cagtaaaaaa gttgcacgga tggaaactaca gttttatttc 180  
gtttcgctca gagcaagatg caagtgaagc gaaagttctt ttgaaatctc agaaaatcaa 240  
aggtttcac tgtgtttgg aacaatggcg caatgttaac aagaaaagga aacacaagga 300  
gtgtttacaa atagttgacg atagaatgaa acaagtcaag tggatccttcca cgagttaa 360  
atttggaaaaa agattggaaaaa agactgttgc tg 392

<210> 4779  
<211> 201  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-048-Q1-E1-E4

<400> 4779

gcgtccaaaa gaaatccgaa aaagaagaga aaaaggtaag aaaggaggacc gaatcagggt 60  
aagaggtna ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa 120  
gggaagtaaa agttaagaaa gagaaaggt ttacgagaga aggaagtata aagaagagag 180  
tgttaaggcgg cgtcataata g 201

<210> 4780  
<211> 221  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-E9

<400> 4780

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gagaagagag aatgctgggt ggagtagcga aacatgagaa tggaagtata aggttaagaaa 60  
gagggaaacgt ttacgagaga acgaagtata aagaagagag tgtaatgcgg cgtcataata 120  
taaatccgaa aggagtataa gacagcattg tggaccacta cccaaacatc gacggaattc 180  
tcatacagca cgctgtctt catgccacct ttaaaggaa c 221

<210> 4781  
<211> 366  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-F1

<400> 4781

aattcgccgg tcgacgcacg cgtccgacca cgagtccgag aggaccctac ttgcaagcac 60  
acgctcgtgg acacgaacat ggtttctaca atgactgaag aacaacaagc gggtaatca 120  
acggtgctgt ctgcgaaacaa cgattctgtt gacgaagagt tgggttgaa ggaccttcct 180

cccaattctt ttgtgaggcg ctactcgtat ggaaacatgg gaggaatgtc acaggaatac 240  
cacccacctg ccaagcaagt gatgaacttg ggacatcccgg aagcactggg attggctggg 300  
tttgcttcaa cagactttat gttgagttgt atcaacgcaa atttgttacc cagcagcatg 360  
acaaat 366

<210> 4782  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-048-Q1-E1-F11

<400> 4782

ggtcgacgca cgcgccaat tccaaaataa ggacgatgc ctacggttcg acgtaacaca 60  
tgacagtagt tgagttctaa acgacccaac tgagtatcag caaccaaacc caaacctaca 120  
gatattcgtg ttgttcaaa caaattcttc caaggagctt ttcttgtaaa cacttggcca 180  
agtacagatt gagactcctt cacagacgaa atatctcaa ttgttagcaaa aatatgagct 240  
ctaggttcaa ataaattacc taatactcct ttactccca gtgaaatact aagagaactg 300

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aagatggtat agaacaattc tcctcccaag gnatcttctt tctccatgg ccctactcct 360  
cgagtttcaa aacctcgaaa actattagga ccacctaaat aaaaacgatc canaacagtt 420  
gaagaat 427

<210> 4783  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-F5

<400> 4783

acccacacgt ccagatatcc atgctgatac gggatcccag tacgtgacga cttacgatca 60  
gtaacgatag attatcatga tgaatatagg gagtaaatta agaatttagat atcgatgtaa 120  
ttcatagagg cactagagtg agttcatttc ttgcatgaat gcatctggtg atgaacctgt 180  
gtagctcatt tcacatacc tctatcatta ctcactgtcg gactatgcga ctgataaggg 240  
tatgaagtcc actaatggta ctcttcgcta aagtgacttt tactacatag tctttcaag 300

aataacttca tagcgctctg actttggta agacattct gtaaccctag tactctctac 360  
catttccacc gactccgata aggttatttc agtgttgaac ccctttt 408

<210> 4784  
<211> 410  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-F6

<400> 4784

ccgggtcgac ccaaacgtcc agacaaggac gaggatgtgg agtattcttag gaacaagtat 60  
tcaactggaa aaacaagtaa cttaaacttttcaagtt tgccatca agacattcat atttcacttt 120  
atggcgtcgt ttgcgcaaaa ctgccaacaa caataacttg tccacagatc tacctccgca 180  
cgtcctgatc aagatgcccgt ctcttctcc tactatgaaa acagggaaata ttgtggatgt 240  
gaaaaagaaaa aattgagaat ctgttacaac cggttgacta atttcggaaa ttgaaacaga 300  
caagggaaact atggagttt aatctcagga aaaaagttat ttagcaaaaa tattagtgcc 360  
atcacgaaca cacgaacttc ctgttggaaa gttagttggc atttttagctg 410

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<210> 4785  
<211> 354  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-048-Q1-E1-F8

<400> 4785

ataagtagga aagagcagca gcatttattt catatttca ttgtgcattt tgaaagaaaa 60  
tggctccaaa aggtgcaaaag agtgttctg ttgcaggcaa gaaaccatc accaaaaagt 120  
ataaaaaagtc caaaaagaag aggtcagagt cctatgctat ctacatttac aaggtcttga 180  
agcaagtgcata tccggataact ggtatatcct ccaaggcgat gagcatcaag aactccttt 240  
gtaaacaata tatttgaacg tattgccagt gaagctagta nacttgcagc ttaatccang 300  
acgaagactt tgacttctcg tgaaatacag actgctgtac gtctgttgc ccct 354

<210> 4786

<211> 333  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-048-Q1-E1-G11

<400> 4786

gcgtccgact caaggaagaa tggcttccga ggaatccaac ccgattggaa gtcactcagc 60  
ttgacttgaa gttgattgaa aggatagaga aaaacaacaa gacaaagaca gaaaagccac 120  
taggttaaacg ttacttgcga agtggtgtcg cgcgggagga tacaagtaga ctaacgacag 180  
cacaacgcac cggttggag gaaccacacc agtgaagccc aggggacgag ctctgtaca 240  
gattcggttt tatttttca ttgtgaagta aacctgaaa gaatggttgg tgcatgtaaa 300  
agacataaaag cgacgttat gatananaan aan 333

<210> 4787  
<211> 300  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-G2

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<400> 4787

cgtccgccca cgagtccgaa gggctctgtt ggtatccgc aacattatat gagtgcatt 60  
gactattatt tgaaaatcgt ttttctatt ttgattccat tggcacttat tcgtaccaat 120  
gcataatttg atctattact aatgggtgaa gatgctattc tgggctcgta tgatgacagc 180  
ggatacgact ttttcttagg aaatcttaag agatattcac ctgtaagtag tacagaagat 240  
attcaatttg cagctattta tcctatatttc tactataggc ttaccattcg atgcacatc 300

<210> 4788  
<211> 381  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-G3

<400> 4788

ggtcgacgac gcgtccgaaa gttaatggag aaggaactca cttcgaata ccattctcg 60  
acgttccat cattatgat gtttagagcaa agccaagaag cgtgcagtct cttacggaa 120

gtcgagattt acaaatggtg caaattacac ttcgagttact ttcaagaccg gacccagata 180  
aaatacccgta tatttatcaa acgttggaa tcgattatga cgagagagtt cttcctagta 240  
tcgtcaacga agtttaaag tctgttagttg cgcaattcaa cgcttctcag ttaattacac 300  
aacgggaaca agtatcgcgt ctgattcaa gaaaactttag agaaaagagcgt aaagacttt 360  
aatatgtatt ggatgatgtg t 381

<210> 4789  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-048-Q1-E1-G5  
  
<400> 4789  
  
ccgggtcga cccacacgtc cagtgc aaag agtgtt cctg ttgcaggcaa gaaaccaatc 60  
accaaaagtg ataaaaagtc caaaaagaag aggtcagagt cctatgctat ctacattac 120  
aagg tcttga agcaagtgc tccggatact ggcata tcct ccaaggcgat gagcatcatg 180  
aactcc ttq tgaacgat atttgaacgt attgccagtg aagctagtaa acttgcagct 240

tattccaaga cgaagacttt gacttctcgtaaaatacaga ctgctgtacg tctgttgctc 300  
cctggagaac tcgccaagca tgca~~gtttcg~~ gaaggtaac a~~gcagtaac~~ aaagtacact 360  
tcttcgtaat acgtactttg aacatatggt gtttgtcaac accttttt 408

<210> 4790  
<211> 347  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-048-Q1-E1-G8  
  
<400> 4790  
  
ccgggtcgac ccaagcgtcc aggtgacggg tcaccgctct tttcgatcct aggaatacca 60  
ctaagactca caaggcagcac tttggtattta ctgttacttt actgaaacaa gtaccagtga 120  
tatcagatgg agtagttcct ttggatatct tcctaactgc tccacatgaa gttttacgtg 180  
tggttcattc ccatggttca agttcctca tggttagagaa ctatagtgct ggaatcatcg 240  
tgactgtgtca gcgtggctct caatctgttc tagcttagcat gttccggat cgtgtcctac 300

ttgaaaattc gctagatggg ttggctactg tcgcactgtt atggttt

347

<210> 4791

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H1

<400> 4791

attcacgggt cgaccgacgc gtccgaccac gagtcggcg tccagtatga aaggagaaac 60  
gagtgttagca ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt 120  
aaactagcag taggacggaa agaccccata attcttgact agataggttt agggaggaga 180  
gagaatcatg aagttagagga ggtgggtaa gagatgaaag accactgcat gaggataagg 240  
aatctaactg agtaaggaaa ataagcttaa gctagttgg ctggggaaagt aaagcctaag 300  
aaagagtaaa ttaggcaagc aaaggcatga gagaagtata atagcagaag catgcttgaa 360  
gaaaaagaaaa gag 373

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<210> 4792

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H11

<400> 4792

ggcttagaat tcacgggtcg acgcacgcgt ccggctttaa gtttgcaaag taaaaataat 60  
agaacaagtt taaaaaggcc aatttcgtct tctagtcaac ttttgcgaat gactggagct 120  
acttcctctg cttccgatga cagtgttcca gatatggaa agagaatgtt cttaaactat 180  
gtcttgcttgcgttcc cattccaatc ttatctatgt tgggtggta tgcatacttt 240  
ttcttatccac cctctcggtt tggttcgggtt acaggtactg ttgcgagaga cgtgttcggaa 300  
cgagaaataa agaaaaagga atttttggaa acgaggaaac caggcacgca tgagttggta 360  
caaggaccta aaggagatcc ctactatctt attgtgagtg aagatggaca gttggactct 420  
tatggactca atg 433

<210> 4793  
<211> 332  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H3

<400> 4793

attcacgggt cgaccgacgc gtccaagcaa aaaaaaggat cccgtcccaa agcacttgg 60  
ttgttcatac acatgttgaa aaggtttaa accatcacag cctaatacca ataaaggcgg 120  
tggtgaaac aaccaaagac tttgttcatg gtgccaaaac acaggttgta tctctgtgg 180  
aagtggacag aggtgtcctt gatccaacat ggttcaacc aacattactt ccagtctgtt 240  
agggtctgta gatagatgaa aaacactgtg tgaaacaagt ttcttctgaa tgttgcctct 300  
atacaacaaa atagtggta cctgacaaac ca 332

<210> 4794  
<211> 280  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H6

<400> 4794

cccaagcgac cacggacgac tgggttattt aaggttatac ttggatcaac ttgccttt 60  
gcctattcct ttgttggaaat gcaatagcag atggttgtt ggttggttca agaagtgcag 120  
gctcggggaa acaaagtatgtt ggatatagtt gtaatgcgtg agctgttgg tacttgtgac 180  
tagattattt tttcatgttg tgcagaaaat aattcgttgt ctgtaaaaca gattgtaatg 240  
gtgcagtgttataa acata gttcatagc agtttttaat 280

<210> 4795  
<211> 345  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A2

<400> 4795

gcgtccgacc acgagtccgg ggaaggataa cgacacgaac atcgaaagta ttatggctgt 60  
tgattcacat gtatgttcaa cgacttcatt ttgcacaagg gaatctggca gcaaatccct 120

gttgaaggca aagcacgcta agatgtcatc gctgtcatca acatcaagaa aatcgcat 180  
gttcgctctt gatgagacgt ttgcgaagaa ttttcagtct ggagattcct cgaactcaaa 240  
tagtttgatt gagattctcg catttgcagc ttctcaagct ctataaacgg cagactgact 300  
tagtttctac ttgttgtcat tgaaattta ttactcgtaa ttttc 345

<210> 4796  
<211> 363  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A4

<400> 4796

aatttacggg tcgacgcacg cgtccagtct tggcccttgt gagccctgga tatttgaaca 60  
agtagaaagtt tatatatattgg aatccatgaa gtggcgatata cgcttatttag tgtatttgga 120  
attttgctta gaacaaggcac gtcgtttgg gttaccttgc atgcgagcgt tgccattgat 180  
atatcatcga gacgtgattt gtcgtcagtt tgatttggag ttttattcg gtccttgcat 240  
attggtatcgt cctgtaacca atcccgaaga tgaagtaact ttttatattc ctgatgattc 300

tgtctttgg tatgatttgtt ggacgggaga aagatggaga ggaggacaag ttgtcactag 360  
aaa 363

<210> 4797  
<211> 369  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A6

<400> 4797

ggtctagaat tccccggccg acccacacgt ccacccacgc gtccggcttt ggcatttctg 60  
ctgcttttg gtggttcacc gtacttgaa aatcttcggg ttgttggttgc gtcaaagcac 120  
atcctgttat gacatctctt cctattccta ttacagcaa caacagaaag gactcatcac 180  
cttccagttc acctggcaag agttgtccc cgcgtggaa agttcgggca ataagaacac 240  
ccacaggtcg aaggaaacac ttttatgtgg accatgaaag aaaagcaact tattgaaata 300  
tgccaaagga gcaaacagac tcggatggca ctgtacaga agaagggttgtt gcaacaaact 360

tgaccttcc

<210> 4798  
 <211> 346  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-049-Q1-E1-A7  
 <400> 4798

gacccacgca tccaatttga ctggggttta tagaatatga ccttcgata ttttctccat 60  
 gcatgtacaa catgtgtaca taaatatacc aactttgttt gaaaacatct ttatggacca 120  
 gtaactgttg gaatgcctct cccatcaaaa gactacgact tggtccaagc aatgattgtg 180  
 ggagaaatat tgttccatt agttgcttgg gcttcagtat agttggtgga ggtatcatgt 240  
 cttttgtgt acaagtcaa actttccacc taccttacct taaaaggaa caacaatagg 300  
 gtttctttt gtacaagact cgaacaagtt ggaaatgtac gagcat 346

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<210> 4799  
 <211> 435  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-049-Q1-E1-B10  
 <400> 4799

ggtctagaat tccccggccg acccacgcgt ccagtggatt catctttag caccaagtgg 60  
 ctgtttatttga caaccccact gttggaaattt gcttgtactg atgggcagcg aattgaaatg 120  
 attccttga agaaagatataa aagggaaattt ttttctcga cttaaagaa gaacttttag 180  
 tcgaacgaag cgtcatggga gtgcagtgtt gttggaaaccg cagttgtgtt ttttatccag 240  
 tattatgaac agtgcgttggaa acagtactat ctagcaggca aagattatga gctacctgg 300  
 tattccaaatg taaaatagat tcggagttatg attgaagatg ttctacaaat agagaaggaa 360  
 cttggaaata tgcgtcagac ctttgttggc gttcggagtc gtcttgcgtt cttgaagct 420  
 435  
 gcatcacgca gcgaa

<210> 4800  
 <211> 425

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B11

<400> 4800

aattccgggg ccgaccacg cgtccagaaa ctttcaaaga ttccgttagct cgtcttgttt 60  
gttatttggt cacttcagag cttgacagag tttcttggt gtactccttg agagactgtt 120  
ttgtgatagt aaagcatggt gggagcactt caggttgctc tggactttat tggacaactc 180  
cctgttggtg aaaatttat catcagagaa atctaagcaa gatgctggag cagtagcaca 240  
aggaaaaagc aaaaagatga aggcagttgc ttcttcagtt ggctcagttac gacaaggcga 300  
gtttaattgg atgaaatttt tgaagacata ttgtaatctg acagagtctg aagcaaattga 360  
atgtttgtat gctatgaaga gattctcgga gagtgagatg gaagtaatca gtacttagtat 420  
gctga 425

<210> 4801  
<211> 116  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-049-Q1-E1-B2

<400> 4801

acgcgtccaa agggaaatatg acccagtaat gaggagtggta gtaaacagaa aaggaagtaa 60  
aaggaggaa tgaaggaaatggatggaaa aacacgtgcc agcagcagcg gtaaaaa 116

<210> 4802  
<211> 366  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B3

<400> 4802

ggtctagaat tcacgggtcg acgcacgcgt ccaaccttat gccaaagatc gttgggggtgc 60  
aactcctatt gatgatgcgt gggaaaatgg gcatataaaa gtagttaaaa ttcttgaatc 120  
ctttcttagag cgtgagggag actccgaatc tgaaatgact gaggaatggg gacaaagaag 180  
aaatcagtat cggtcgata aaggatatga cattccgttg aatactggac atcgtccttt 240

aggcgccctt ccaagttct ctggacaaa tggatgttgct tgtaacgctc ttgcgtgtgt 300  
agtgtcgagt ccagtgaaag aagaaaccga tgctggatta cagcaaatac acagaagtgc 360  
atccatg 366

<210> 4803  
<211> 294  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-049-Q1-E1-B4  
<400> 4803

ggtcgacgca cggttccaga aagtggcaca acggtatgg gaaagggaaac agtagtaaag 60  
aaaagcaagc gtgtatttgtt caaaactgttg agtgcggctg gtacacgata tttttatacc 120  
aaaagtaaga ataccagaaa tactagtggc aagttggagc tcataaaaata cgatcccatt 180  
gtcggaaagc acgtattgtt caccgaaacc aagttgaagt aacttggaca gctgtcgata 240  
gaacgcctat aagattgacg ttggcaactt acataaaaacag cgctttactg aaaa 294

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<210> 4804  
<211> 357  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-049-Q1-E1-B5  
<400> 4804

ggccgaccc aagcgccac ggacgcgtgg ggtttcgatg aactacagtc cctattcgat 60  
aactaccgac aaatcagaag gacatattgt tcccggtact ttttcaagat ttgagtttct 120  
tgaaggcgtca gtcaccggc caacgtgagt atttctttt actgctcgat acagtcttc 180  
acgtcttgc agcgtcttga acccttagcat acttgacttt acagtgtcta atgtttcaga 240  
tgctgcctt ggagaatgga gagcattatc ggcttcaagt agagaaaaag aactggaaca 300  
cagaagaaac gtcacccaaag cgacaataga aagtctcaag aagactccta ccgaaaa 357

<210> 4805  
<211> 349  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B6

<400> 4805

gggtcgaccc acacgtccga ccacgcgtcc ggcagaatgg acgacaggct tccacgtttc 60  
aaaagaaaacc tcacaaaagat ggcttaataa aaggcaaatt ttcccttaacc cttttggcaa 120  
atttcctttt ggtgaaacca tggccatcat gaaagcggcg gtcttggcat ccttggccta 180  
aacacaatgc gccgttgcaa tacaagcttc tcctctagag gacactttgg gtgcctttat 240  
gcggggtggt tatcactcgc aaagccaagc accaaaccct atctgttgca agttgagctg 300  
tcattataacc caattttgtg aacaatttat cgtccaaact caagaggtc 349

<210> 4806

<211> 355

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B7

<400> 4806

ccgggtcgac ccaaacgtcc aacatcatat cgagccacga tgaaaactgg atgcttactg 60  
gaaatcacac aggcatgtg aagtactggc agtccaagat caacaacctg aacgcattt 120  
tatcccacga cgaatccatt cgagacatta ctttgcagt ttctgacgta aactttgcca 180  
catgttcgga ttagtgtgacg ataaacatat gggacgtatt gagaactgcg gatgcttgc 240  
attttaccgc atgcgatgaa taatagcaac ttacaggaca tggctggat gtacgttgca 300  
ttgaatagga tccgcagttt ccgaatattt cttcgggctc caaagattct ctact 355

<210> 4807

<211> 376

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B8

<400> 4807

gtaacggtct agaagttccc gggccgaccc acgcgtccaa agacatttca tggcacccaa 60  
ggaacgtagt aaaccaaaga gtcgctttc taaagccggc cttcagtttc cagttggacg 120  
tgtaagtaga ttcttaaaga atggaaacta tgcaaaaaa gttggagctg gagcacccgt 180

gtathtagtgcagtttgaaatattgactcgaaagtgttggactggcaggcaatgc 240  
agctcggtat aacaagaaaa cccgtatagt tccacgtcat attcagttggcagttcgtaa 300  
cgacgaagaa cttaagaagctgttggcggtgtactatt gcttcagggtgcgttcc 360  
caacgtccat cccaat 376

<210> 4808  
<211> 303  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-C1

<400> 4808

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ccttacttgt tattaacgca tttcttgcc gttgtctct acggatgcgg aaggcagttg 120  
aaatatttcc tagttggaa acgagtgaga acgagttggctctgttag acatgcattc 180  
aatatcgta agcctttat tgatgacgaa aacgtcacct ttctcagcaa gattcctata 240  
tcacacatat gatTTTgttg tgatgtggag aacacttatt taaacgtttg tattttcgc 300

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ttc 303

<210> 4809  
<211> 364  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-C2

<400> 4809

cacgggtcga cgacgcgtcaatttcatt tcacattctc cttgtagaaa actatgaagt 60  
ctttcggaaat tgctattgtt ttcctaagct ttgttattgc atcttatgca gcagttgtat 120  
ccgaaatggc atccaatgag tttcaaagag gaggatacgc tccttccttc caaggaat 180  
gctgcatgac cacttgtcaa tatgcagaac tttgccaaat ttctcaacca acttataagcc 240  
aagctccatc ttacattcca ttccttacact atggccaagcccttcctac aatcaatatt 300  
cttcttcgtat cgggttcctct agctatcgcttcactgc agacgaaaac caacttgtga 360  
gcag 364

<210> 4810  
<211> 363  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-C3

<400> 4810

aattcacggg tcgacgcacg cgtccaaata ctatgaaatt gagtaatccc tcttatagcg 60  
acctcaatca gttggtaact gcagtaatgt cgggaatcac ttgttctctt cgaaaaatcc 120  
gacaactcaa tgcagatttg cgtaaattag ctaccaatct gattccattc cctcgatctac 180  
actttttcat gattggattc gtccttag ctgctccgg aacgcagcag tacaagtcaa 240  
gtatgtttttgc tgacttgtgt caacaaatct ttgattctcg taacatgatg gcagcatgtg 300  
atcctcgatca tggcggtac cttactgcag cagtttattt ccgaggaaag gtgcacacca 360  
acg 363

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<210> 4811  
<211> 356  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-C8

<400> 4811

ccggggccgac ccacgcgtcc acccacgcgt ccggccacgc gtccgcattt acattggcagg 60  
gttggattact tctcgaaat tggctcaata ttttcattct ttggaaacta atgtcgatgg 120  
agaatttgag aatatcctag taaaagatat gttggatcac aacaaggaca aagtgcgtga 180  
aagggttgcac gatcaatcca tcctagcgat gcaagtatcc tcttagatgt aagatgtgt 240  
ggagttgtatg gcacagtatg gagttggatg tattttggta acttagtgacc atagcaaagg 300  
tgctttgcac ctttgcgtt atgttggatg aatgtttacg gaaagagaat tcattc 356

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<210> 4812  
<211> 372  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D1

<400> 4812

gtcaagaatt cacgggtcga cgcacgcgtc caagacattc tcatcgagag gaagagagtg 60  
gcagacaagg ttttttatt gtttcaagt ctctccaagg gcctttaaa ggaaaaaaagt 120  
ttgaaatccc agagtggaaag cctgtcattt taaaagaag tgaaacgagt ttgaccccaa 180  
gtttcataa aaggcttagt gaagtttgc taccagaccc cgacgttca cgacttcacg 240  
ccaaagtttc atttaaaggt ggttagattt ggatagttga cttggaaagc ttgaacggaa 300  
cgttttgaa cgataaacga cttctgcgg aacgtgtacc tttggacgaa ccggttgttt 360  
tgagcaacgg ag 372

<210> 4813  
<211> 413  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-049-Q1-E1-D10  
  
<400> 4813

ggtctagaat tncggggccg acccacgcgt ccacttgtac gcactttcc atttgtcggc 60  
aaggcgtggg aagtttccc gtcctttcg tattcctctg ttagagtatc tcgtcaactg 120  
tttcaggtt ttggtcttgc aacaatggct gctgcaaaca caaaggaact agaaaccaag 180  
gtgagggaca ggctggtgca actttacaag cagactcctt gtatgccaat aatggtaaga 240  
atagcttggc acgacgcggg aacatatgat gtgaatacca acactgggg agtaaacgga 300  
tcagttcggtt ttgacgttga acagaagcat aaagccaacg ctggtctcaa agttgcttg 360  
gatttattgg ctcccatcaa aaaggacttt cctgagatca gttatgctga cct 413

<210> 4814  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-049-Q1-E1-D12  
  
<400> 4814

ggtctagaat tccggggccg acccacgcgt ccacccacgc gtccgaagaa gagaaaagcc 60

gtactgaaga ccgacacagg tactcgagga gaaaggagac ccaaattaag gtgagagaat 120  
ggacgataag gaactaggca aaaggatatg gtatctgcgg tagaacatat gaaagaagca 180  
gcaccgactg tttagcaaaa acacagcact ctgcagaaaa gagaaaatgt aaagtataga 240  
gtgtgcggcc tgccaaatag tagagaagaa atcgatgaaa gtgaaagcga gtaaaagatg 300  
aggtatagag aatggcggtc ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt 360  
ttgaaaggcg tccagtatga aaggagaaac gagtgttagca ctgtctagtc gtccaaactca 420  
gcgaaacagc aat 433

<210> 4815

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D2

<400> 4815

ggtcgacgca cgcgccgac cacgagtccg cgtcggttacg gtttacgatt gttagtgcgg 60  
tttggatatg gcagaccccc aaactgaaag agcgttcaa aaacatgacg ctatatcttt 120  
aaagcagatc gctggagtat ccaaaaagaa tgcaagatgg tacaagaata ttgggttagg 180  
aatcaaaaca cccaatgaag ccatagaggg agaatatata gacaaaaagt gccctttac 240  
gggaaacgtg agtattcggg gaagaatttt gagaggaaca gtggttcaa cgaaaatgaa 300  
gaggactgtt atcgttcgaa gagactatct tcactgggtt cgcaagtaca gacgatttg 360  
aaa 363

<210> 4816

<211> 357

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D4

<400> 4816

cgcacgcgtc cgaccacgag tccggaagaa aagagagaga agaaagaaaa gaagagaaaa 60  
gccgtactga agaccgacac agtactcga ggagaaagga gacccaaatt aaggtgagag 120  
aatggacgat aaggaactag gcaaaaggat atggtatctg cggtagaaca tatgaaagaa 180

gcagcaccca ctgttagca aaaacacagc actctgcaga aaagagaaaa tgtaaagtat 240  
agagtgtgct gcctgccaaa tagtagagaa gaaatcgatg aaagtgaaag cgagtaaaag 300  
atgaggtata gagaatggcg gtcctaactg taaggatcca aaggttagcga agtaaat 357

<210> 4817  
<211> 260  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D5

<400> 4817

gacccaaacg tccagttcca cttcccggt acatacacga gaggactcct tgtgccgccc 60  
ttggacataa tgctacaagg ttccgaatca cagtcgtgtc ggtcacccctt gggtgtaatc 120  
tcacagttgt attaatcacc taagtgtaac tatggatgt ttaccccatc actgttcaga 180  
tagtatactt aatctgcctg tgaaattgta gctctaactc ccacagtcag tgctggataa 240  
acagatattc aaattgaggg 260

<210> 4818  
<211> 371

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D8

<400> 4818

ggtctagagt tcccgccccg acccaagcgt ccaggagaat tttgtctgca atagtatgaa 60  
gcaagtctgt actgacaccaa tagacttgct agaaaagagta gagcagagat gcatagaatg 120  
ggacaaaaag acagaaaagc tttcaggaga agtgaardaa gaatatttgt cgttttggc 180  
gccttttgtt tatcagcgtt ttctcggtgt tttgtttact tggAACGCTC tggtgattga 240  
atgtttcat tctaatttct ttgttagtcga aaccattcga gggtttgtt cactgactgt 300  
tggtgccccct gtttagctc ttgccgttag tctttcggtt ggcatttatt atcgacgcaa 360  
aagtatgccc a 371

<210> 4819  
<211> 426  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-049-Q1-E1-D9  
<400> 4819

ggtccggaat tcccgccgcg acccacgcgt ccacccacgc gtccgcccac gcgtccggcc 60  
atgcttatcg tgaccctatc acggaatttg tcgaatgttt gtatgtaat tacgactttg 120  
aaggagcaca agatttgtta cagaaatgtg agacaacttt gaagcacgac ttttcttga 180  
ttggaacggtt ggaggagttt ttagaaaatg ccagactatt tggttttgag atatattgca 240  
gaattcatca agtgattgtat ttgaatatgt tggctgccaa gttaaacatg gaccgagagt 300  
ctgcggAACG ttggatagtg aactttatta ggaatgcacg tctagacgcc aatgtggata 360  
GCCAAGCAAG tcacgttatac atggaggtga aaactccaag tgtctacgag caaattgtgg 420  
attcta 426

<210> 4820  
<211> 434  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E12

<400> 4820

ggtccagaat tcccgccgcg acccacgcgt ccacgccaag tgtcaaggca cctttgttg 60  
ccaccgtaac tgttcattca ggttcaaag ctgttatgag tggcatactt gtcaatcaga 120  
aggaatctt tgagacagca aaaggaaata tacagaatat ctattttt gaacaatcca 180  
ttccagttcc ttccatctt atctcattag ccgtcggtgc cttgagtcg caggaattat 240  
cagaaaggtg tcgtgtttgg tcagagccgg aaatcattga aagtgcgtt tttgaatttg 300  
ggtaacgga gcagtttctt aaaacagcag agtctgtgc aggctctat ttgtggtcga 360  
gatatgactt gctatgtctt ctcctttt ttccatatgg ggtatggaa aatccatgtt 420  
tggctttgt tacg 434

<210> 4821  
<211> 362  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E2

<400> 4821

ggtcgacgca cgccgtccagg ttgttagttgg gtcgtcgcgt tttggtgaca agggaaagata 60  
aatggtcgtc aaaacagaaaa cctgtagttt ttcagggttc cgcatttacc ccggaaaagg 120  
cactcgattt gtgcgcgggg atggcaaact cctcatctt agtaaccgca agtgc当地 180  
ctactttcat atgcgttagga gaccggcaga gttgaattgg actcagttgt atcgaagaat 240  
gcacaaaaaaa ggacagcaag aggagacaca gaagcgacgt cgtacgc当地 aagttgctgc 300  
tgtaccgaaaa ccggtggaag gcgcgtcggtt ggaagtgtac aaagcaaaga gaacgcaacg 360  
362

cc

<210> 4822

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E3

<400> 4822

aatteacggg tcgacgacgc gtccgggtac aattacgttg tggatgc当地 atgattgttt 60  
ccgtggcaac tcctgaagtg acaactactc cttctactct agagaaaaaga cggaaatagt 120  
actcgttatt accttcacaa gctgaaagtt taaaagatgg tttcaaaca gtggaaac 180  
aacacagacg agattaaaa aagctgaaa ggcggtataa aagcgctgtg aaacagctgc 240  
aactgaagca cagggtatgc aaagtgttga aagcaaagaa tacaggtggt gtaagtaagg 300  
aagaggagaa gtgacccata aagtcatgag ggagattgtg ggagtggaa tggcctct 360  
368  
tcatcctt

<210> 4823

<211> 376

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E4

<400> 4823

gtctagaatt cacgggtcga cgcacgc当地 cagtgc当地 atg caaagcgacc 60

ttcttagtgtt gttaaggatg cgcttcacat aacgaaagat atcaattcaa tcgaaggcct 120  
ttcatggatt aacttgctt ttacgctatt cctttgtgga gtagcagcag ttgacggatt 180  
gttggtgaaa gataagacca gcagctccgg caaacagaat acaggagcga acaatgctt 240  
agtttcttga gaagttacaa atagtcgtt ctatgaagtt gtctgagttt cgtgagaaaa 300  
gacaagtagt tgcgtctatg aagttgtcgt aaatagttga tgtgtgttgc gttgtttgc 360  
cacagaaagg atgttt 376

<210> 4824  
<211> 55  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E6  
<400> 4824

tatatcttg ttcttatatg tatgttgtt aagcttata tcttgccact ctgga 55

<210> 4825  
<211> 310  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E7  
<400> 4825

ggtctggaat tcccggttcg acccacacgt ccagggaaatc gtaggttaaa aagatgtcac 60  
actatctttt ctacatctcc tatcacatat gatggctgtt agcagaacta tattttgcc 120  
cttatgaatt aatttttaggc tcaacataac gaagacatca ttgcataactg aactggaaat 180  
gagtagagac ttactaggac atatgaggct gcatccaccg atatttctct ttatggaca 240  
tgaaatcggtt gaacttctgt tagtatttgtt aattacacag cataatatgg ctatggatac 300  
gtctgaggat 310

<210> 4826  
<211> 373  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E8

<400> 4826

ggtctagaat tcccggtcg acccaagcgt ccaggaaaag ttgtccaacg agaatttttc 60  
aaatgttccc ggagaatata ttctagtaca cctgattgtt gcaagtgaag gaaaactttc 120  
ccagttaccc tctcagttga actcggaatc cgatgtccga gaagcattga agatttttc 180  
tagtacttgg agtgataagc ttcaaggact tgaaataatc tgggttcctc aggctataga 240  
cgatgtgtta actgagaagg aaatgctcct acagcatccc gagttgcaac gcatttcgta 300  
attgagacgt attgttttgtt gatgagtttta ttgagtaatg ttttaagggt tagtagggat 360  
atagatagga ttg 373

<210> 4827

<211> 359

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F1

<400> 4827

ggtcgacgca cgcgtccgac cacgagtccg cgaggatttg cgtgcgatgt gggtttgctt 60  
ctccttggtt ttcctttttt gaaactagag cgttcacaa gagtgcttgcataattcat 120  
ccttttacgg aaacagaact ttgcggaaagc aaccccgagaaatgtgttgcattttgttag 180  
cggttttcgg taacctgcgt tgtaccatttgcggaaagcataaa taccaagcaa gctccgtgc 240  
aatatgtttc tttagcgaaa gagttacaga cagctctaataaaactttc aaagagaaga 300  
gttcagactc acttgcacaa cttcttgcttgcgttggaaagaat tgcataaaag 359

<210> 4828

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F10

<400> 4828

ggtctagaat tcccggtccg acccacgcgt ccaaattttaaaaacaaaaaaa tctgcaaggt 60  
gaagcattgc ctgcggaaat aaacacatca gaagatacat aaaatatggc tctcttcgtt 120  
tggctcttgc ttgcgacgggt tccgcagagt tgggtttgttgcgttggcgagag 180

ccattcctcg ttgctttgtt ttttgttgc tctttacct ggctgttcat gcgcagctta 240  
gtacggctt cttggatagc tacctctcgt tacgtaacaa tgtattctt ttgggttctt 300  
ctatctcgt gtttggagga actcgcatga tgttcgttt ataagatata taggcaccta 360  
aatctgctt tatgggaatc aaatgatgct tcaaggctcg aagactatcc aca 413

<210> 4829

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-049-Q1-E1-F11

<400> 4829

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taaatgaggc gagaaagcat aggaagtcaa acggattagg aaccctgtta gtctatgcag 120  
taaaagaaag aatgagtaag aaaaaaggaa gtcattccac cagggagta aaggcgcaag 180  
aaagaaaccc aaagcaattg acggaaatcg gaaaaaggaa tggatcacgt aaattaatcc 240  
gataaaccga gaaccttacc tctccaagaa ggtgttgcac ggctgtcgaa agaacgtgct 300

gtgaagttag agaacgtacg agaaagccaa gtgaggaaaa gaaggcaagt agagggcgcc 360

ccgagaaagg agaaggcgta agacgtgata cagagtagga aganaagaga agagagctag 420

aaaggaggtt aaagaag 437

<210> 4830

<211> 417

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F12

<400> 4830

ggtctagaat tcccgcccg acccacgcgt ccaggttgct caaggtgtta aatggcagta 60  
gttgaagata acagagtctt tggtgggtt ctccctgggt cagttgtta agaagacctt 120  
cgtgaaactt ttccaaata tggagaagtt gtgtatgcaa gggttgtgt tgaacgtgaa 180  
actggtcgtt cccgtgggtt tggttcgtt tcctatgcag aatgttcctc cgtagacgaa 240  
tgcattgccg cactggatgg caaggatatg caaggacgca ctattcgtt gaacaaggca 300

atgtctcgta aacaacgcga gagtggagga gacttcgtc gcggtggtcg tggacgatac · 360  
ggaggtttc gttccggtcc ttatgagaga cgtaacgtg actctgatcg tagaaga · 417

<210> 4831  
<211> 350  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F2

<400> 4831

cgcgtccacg ggatagttgt atgatttctt cctggaaagt gctcgaaaca ttctctcttt 60  
gaatacacac aaaatacgtc ctgttgtgaa agcacctgga atggaactag aatatgaggg 120  
tcacgtttct tgtaaaagcg aaaacgatga agacgcgctg tatgaaagtt cttaacgtt 180  
gggtgataac gaaacctacag taagtattcc cataacatca tacaggagac aaacggtgaa 240  
ctgtgagcac ggaagaccag cggtgggatc acctgaagaa ctggtgaaag cagaaagtta 300  
tacggAACCT gacaagtggg aagagtcttt tcacgaagac actgttagtt 350

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<210> 4832

<211> 367  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F3

<400> 4832

attcacgggt cgacgcacgc gtccgaccac gcgtccgccc acgcgtccgc acagtttgc 60  
atgagagaag ttgcctgca taccattttg gtttcctcg atgtctattg gggcctcata 120  
aaagaagtga cacctatgtt tgcagaatat cgatatcaag tccttgtaga agaagacaca 180  
ttggaaggcc atctgagtga caagcagtac attttgtgga aaaatgtcag tgctcaagca 240  
aagaagaagt tgaagtggag ctatcttgat ttgagcaact tgcctctgga catcgacatg 300  
gaacaagtgc agcgactatt tcatgtaaatg catacaaattt gtttgataag attacaagca 360  
ggtaaac 367

<210> 4833  
<211> 368

<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-049-Q1-E1-F4  
<400> 4833

aattcacggg tcgacgacgc gtccacttg tatgcgtcta tagaggaatg tctgcctcac 60  
gaaagacttt tcttgcgga gtcctgcaat actcgaaaa cgaaaatactc aatattcaaa 120  
gttttatttc atagttacct agcactgctg gctatccact atttcagat gataggccaa 180  
gtgacagaag gtcgtcaaga ttggtaggca tttcagaggt ttgtggagaa atctcttccc 240  
tggtccaact gtttggctgt gtgttttac cctggaagct tggtgaggac ttgggagttt 300  
cgcccgctg tatctcttct ttcacaggtct tttttggcc ctttcttttgc ttgtcaaata 360  
tttccaga 368

<210> 4834  
<211> 370  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-049-Q1-E1-F6

<400> 4834

ggctagaat tccgggtcg acccaaacgt ccagcggagt tggggctgt gagggtgtgc 60  
agttgcttgg gtgtgtcttt tcacgtaaca tatgctttc aaagcaccgt ttgttggAAC 120  
tttgaagcga aattgagttg ccaaacacga aatacttttA gaggtgaagg acttttgtat 180  
gttcggcccta tttcaaccc aaggagctt cttaccagt gctacat tcaacgttgc 240  
ggacttggcatcactacgactcgacgag agtacaaaga acgacggctt ggcaagttt 300  
cactggacaa agatTTTGT tcccgacggt atgagaattg acagacagta cgccaacgtc 360  
cggttggaaag 370

<210> 4835  
<211> 338  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-049-Q1-E1-F8  
<400> 4835

ggtagataga tccccgggtc gacccaagcg tccaggctag gtttcccact gagctacctg 60  
gacacctctg gtgatttgac tcctgctgtt gcttgaata atactataat gaatgttgcc 120  
ttaatgaaac ctttcggcag cagacaccct gacgaaagtg atgctgttc tagtgcagct 180  
gctgctcaag gagacggagt tcgaaaacgta ttgtcaaatg acatgtcgca tctgccgcaa 240  
gacgagtcga tagaacatcc catctcacgt gacattgaag attatcataa agtgcacatgt 300  
taattgattt ggatcttgg tcaagttatg ttcaagtc 338

<210> 4836

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G12

<400> 4836

cggtagataa ttccccggcc gacccaacgct tccaatgaaa ttccaaaga aatggacctt 60  
tacttgaaga aagtccgata taatccagca aaggttccaa agatccctgt atctggatgg 120  
actggagata atcttttga gaaagttctt gccgatcatc ctcttgaaa gtggtacaaa 180  
ggaccttgg tttggatatg attgacccgc ccactcgatcc agtagacaag 240  
cctctacgtc ttcccttaca ggatgtctac aagattggag gtattggaaac tttccagtt 300  
ggacgcgttag aaactggtgt cttgaaggct ggtatggtgg taacctttgc accagttgg 360  
ttgactactg aagtcaaatc ttttggaaatg catcacgagt ctattccgga agctcaacat 420  
ggtagacaatg ttggcttcaa cgt 443

<210> 4837

<211> 349

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G2

<400> 4837

gcgtccatct catagttgg tttattggg aacacggagg acgacagtag cgatgggatt 60  
gttttagtata ctgtttgtga aaccgagtcg tgtaccgcaa agagtcgtag agtttcaaaa 120  
gaccaaggcg gaaggttact ttacatacaa cgccggaaag tacgaccgat acatcaacac 180

acctatttac ctgtttgtt ccttcaccgg tctttatgcc tttattgacg gttgtcttt 240  
ggcggcagga aagaaggaaa gtcaatcgta aatagcgttt tttgtccctg tggacagtct 300  
tatgaactag tgattcgttt gttctgccag ttttagtttc ctgtaatga 349

<210> 4838

<211> 358

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-049-Q1-E1-G3

<400> 4838

ggtcgacgca cgcgtccggc aataattccg ttactatgta tggagatggt gctgcgaacc 60  
aaggacaagt agcagaggct atgaatatgg cagcgttatg gaagttgcct tgtgtttatg 120  
tatgtgaaaa taacaagtat ggaatggaa cgagcaccga tagagctca gcaaatacca 180  
acttttatac tcgtggagat gtcattcctg ggattcgagt agatggaatg gatgtattgt 240  
ctgttcgaga aggaatgaag ctcgcagttt attatgctcg ttctggaaag ggacctttg 300  
tagtagaaaag tttacttat cgctatcatg gccattctat gtcggatcct gnttgtc 358

<210> 4839

<211> 360

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G6

<400> 4839

ccgggtcgac ccaagcgtcc acggacgcgt gggtagattt gaccatgcac gtgttctaat 60  
taccaggccc gctgcacgtt ggtgacacctt aaataaaaag cagacgtaga acaagaattt 120  
tagctgttcc agaaacaaga acagcaaattt cgcaatttggt tggtagcagc aagcagttt 180  
cttgaacagt tgatctttt ttcaagtgtt tgtacaaaga gtcgatttct tcgttagttca 240  
aagtgcagtt ctccgtcgc tcagaataag acaatcttag ctgtgtttac ggcttatctc 300  
aacgtgaaga tgtcgatgca acgtgaagct tttcgtgca acaagccccga caagctagtc 360

<210> 4840

<211> 373  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-049-Q1-E1-G7  
  
<400> 4840

ggtctggaat tcccggtcg acccacacgt ccacgtgtag tctatgcagt aaaagaaaaga 60  
atgagtaaga aaaaaggag tcattccacc aggggagtaa aggcgcaaga aagaaaccca 120  
aagcaattga cggaaatcgg aaaaagggt ggatcacgta attaatccg ataaaccgag 180  
aaccttacct ctccaagaag gtgtgcacg gctgtcgaaa gaacgtgctg tgaagtgaga 240  
gaacgtacga gaaagccaag tgagggaaaag aaggcaagta gagggcggcc cgagaaagga 300  
gagggcgtaa gacgtgatac agagtacgaa gaaaagagaa gagagctaga aaggaggtaa 360  
aagaagagta aaa 373

<210> 4841  
<211> 296  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-049-Q1-E1-G9

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<400> 4841

ggtctagaat tcccgcccg acccacgcgt ccaggcaaat ccctgaaatc agtatcaaaa 60  
tatggatagt cgcatgaact gactaccaag cttcacagag ggagtacatg aggaccgact 120  
tatcaacgaa gtatgagtaa gagaagggt aatgtgtatg acagcatgtc agtagctgca 180  
tcatacagtg taattcgcgt acctttgca tactgtcgca gcgagtgaaa tacgacctct 240  
taagatttca tccaattaa cgagctatca tccgcagcga gttgatcata ggcggt 296

<210> 4842  
<211> 317  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-049-Q1-E1-H12  
  
<400> 4842

acccacgcgt ccgcccacgc gtccggggac tcgacgattc agatgtgcc tttctaaag 60

gctttgatgg atacgaaaca taactgaatc atgtaacact atgaaaatgc taacttggac 120  
ttgatgaaac gtatctatcg aatgaaaatg ccagagtcga agaactttgg atgtttggta 180  
tttacttagag ccgtgctcta gtgttagaca aggcaaaatg ggaaagctaa aaatgattcg 240  
gttccagcaa ataaactgtac acattggatt atcttgtac aataaaaccaa tcttccaacc 300  
atatcaaaga cagaact 317

<210> 4843  
<211> 362  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H5

<400> 4843

ccgggtcgac ccacacgtcc gaccacgcgt ccgcccacgc gtccggagag aatcgatcg 60  
gcacttgatg gcttcgtag gattctccaa cgtcaagtac aacacgaaaa gtccgcatgt 120  
cgtctgttta caaaccagca aaagagaaaag gagatggaca acttgtttc atggagaccg 180  
ttcttgcttt cttagtcaac gacagtcttt tatcccaaca ccgttacgac gacgttccga 240  
cctgaaaatg accgcacaaaa ccaaagaagc cggttcggaa gccaaagaaaa agactttga 300

atttcaagca gaagtttcca gagttatgga tattatcata cactcttat actcccacaa 360

gg 362

<210> 4844  
<211> 325  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H6

<400> 4844

ttccccgggcc gacccaagcg tccacccacg cgtccgaagt ttgggttgc tcttggtagc 60  
agttgtacat tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaaag 120  
aagccacaag taaacctgca gcagcagatg ctacaaagac gacagaaaaag tctggtccgg 180  
aagccaaagt gaagggaaact ggtgcaaaga aacaataaaa agttgactat gcatgtgcag 240  
tcctgttatg ttttgtgagt tctgtttgat agttccagc tattctttg gtatgtata 300

aagagaaaaat ttttatatt tacac

325

<210> 4845  
<211> 371  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H7

<400> 4845

ggtctagaat tcccgccg acccacgcgt ccaagttct ccaaagaaaa tcgcagagta 60  
cacaattcgt acgttacagc gtactgtgcc agctgccgt a cctggcattt tctttttatc 120  
agg tggacag tcagaagaag aagctccgt gaatctcaac gcatgaatc aagtggagat 180  
gatcaaggcct tggaaacttt cctttctta cgacgtgct ttgcagtctt catgtctgaa 240  
agcatggcaa ggaaaggcag agaatgtccg agcggcacaa gaagccttt tagtcgtgc 300  
aaaagcaa at agtgggcta ct tggtaa atatgccga ggtactgggaa atagcgaatc 360  
tttggggc a 371

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<210> 4846  
<211> 303

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H8

<400> 4846

cgggtcgacc caagcgtcca atcagagtaa agaaagaagg aagatgagaa gaagagaggg 60  
taggctttaga agcagcaa ac cagagagaa agcgttaa ag catgaaagaa aagaaatccg 120  
aaaaagaaga gaaaaaggta agaaagagga ccgaatcagg gtaagaggta gaggagcaag 180  
aagagaagag agaatgctgg gtggagtagc gaaacaagag aaggaaagta aaaggtaaga 240  
aagagggaa ag gttacgaga gaaggaagta gaaagaagag agtgtaaggc ggcgtcataa 300  
tag 303

<210> 4847  
<211> 400  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A1  
<400> 4847

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aagagactgt ggtttcgct actagaagaa aagtacctt tttagtattt gttgaagttg 120  
tcgaaaccaa tatgttgtgt tgttgtcaat atgtgtttt tgaacatatg ctcatggatg 180  
attatgaaga aacacatgac aatgacatcg tagcagtcat ggagagtcga cactttccc 240  
atcggttcaaa gaggacttt tcgaccgaag aaactcctcc ttcaaaggaa tcaagaagtg 300  
gaagtgtaga ttcttcgacc acgccggagt agtaaacaca acgagcatgt acgaactgcg 360  
gtctatggaa atgcggaatc cgctgtcgat atggatgcct 400

<210> 4848  
<211> 456  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A10  
<400> 4848

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tcggaattta acgaacttaa tgcgaaagtt ttccgtgtga gttcggacag tgtagagtct 120  
cagaagtgcgt ttgccgatga agaaaaagttt acgtttccct tagtatctga tgaaggcggt 180  
aaagtacgca agctatacgg tgtaccaaag agcatgttta ttatgcctgg tcgctgcact 240  
tatgtcattt gtccggatgg tattgtacga cacatctaca acagtcaagt aagtttcgca 300  
taccacgtgg aagatgcaaa gaaggcggtt gtaaagatac tagacgacac gcatacagga 360  
gaagagtgaa cacactagac tgcttgccg cttcttgat aagaataggg ttccagtcat 420  
gtgcttcggc tgggtggca agttactttt taagtt 456

<210> 4849  
<211> 455  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A12  
<400> 4849

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gcgttcggtc atagtaatga aagacgatgt ggacaagata ttggagctgg atagtcataa 120  
gaccttagct atgggtgggg agccaggtga ctttgtcag ttcacggagt atatacaaaa 180  
gaatcttcac cttacgaat tccaaacggg attgcaacta agtactcacg cagttgctaa 240  
cttcattccgt gggaaattgg ctagattgtat acgggaagcc cccgtattaa ccaacctact 300  
tttgggggt tatgattctg tgtccggcc ttcactggta tacatcgact atcttggtac 360  
tttggaaaaa ctagactata ctgctcaaag atatgcgtcc tccttattt tggaaactct 420  
cgatcgatat tatcaaaagg atattacact ggacg 455

<210> 4850  
<211> 364  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A5

<400> 4850

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gtaacgagaa\_gaaatggttc aaatatttgc tgaccttgaa aagacagcca aaaagctttt 120

ggaagatgat tactgtttcg ataataaagt gacgttggaa tcagcgacga gtaatggcgt 180  
gatataatact tcggaaggcg ttcaagattc ctttagtggt tcagttctg gtgaattgca 240  
agggaaatac aaacagaaag gttataatgt aacaaccaa ctgaataacct cgggcacctt 300  
ctttccgaa gttgccttgg aagaagtggg agtgaardgt cttcgagttg tactgaacac 360  
tacg 364

<210> 4851  
<211> 446  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-B10

<400> 4851

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tgagaatcct gcaaaggcca actgaaagcg cccttatagt ttttattctc tactgtttgg 120

tgtcccttgt ttttaagtcaa caacaggaaa ctccttctt accttcctat acgttgacta 180  
ttgcggctga agtcttcaac gaagatgcac ctcaccgtt gagtagaaac cttccttctt 240  
ccaaagagat agaagtagca tattcttta gtgtgcaac ggataaaaaa agtatacagc 300  
ctgagactct ggttagattgt ttagttggag tggcaaattgg aggaccttt ccatatcgaa 360  
tattagcgt tggtgagct ttgcactccc ctggcaatt taactattat gttcacaact 420  
ttactctcct ttatgtcaac tatact 446

<210> 4852  
<211> 461  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-B7

<400> 4852

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aagagaaaaa ggttaagaaag aggaccgaat caggtaaga ggttagggag caagaagaga 120  
agagagaatg ctgggtggag tagcgaaaca agagaaggaa agtaaaaggt aagaaagagg 180  
aaaggtttac gagagaagga agtagaaaga agagagtgt aggcggcgtc ataatagaaa 240  
tccgaaagga gtagaagaaa agagagagaa gaaagaaaag aagagaaaag ccgtactgaa 300  
gaccgacaca ggtactcgag gagaaaggag acccaaatta aggtgagaga atggacgata 360  
aggaactagg caaaaggata tggtatctgc ggtagaacat atgaaagaag cagcaccgac 420  
tgttagcaa aaacacagca ctctgcagaa aagagaaaatg t 461

<210> 4853  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-B9

<400> 4853

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tggatatta agacacgtgc tgtcggctg acattgagtg gacaccctgg tcattgtat 120  
tcggtaaaca cttcaatga tggaaagattg ttggcaagtg gtattggaga tcagtctgtc 180

acgttgtgaa acattcaata tggtcacgag gagaggacat tgaattgttc aggtcttcag 240  
aaaggacctg gtgatggact aacttctgtt tcagttagtc gtcgtactcc ttatcgtaat 300  
gcacatctggtg cattgtgatc gaactgatag tattcgatgt acagaccggt gaactttgc 360  
tcaattatcg tcaacatgca tagtcagtag attctgttagc attctctagc aatgtatgat 420  
agctcttatac 430

<210> 4854  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-C10

<400> 4854

ttcccggtc gacccacacg tccagtagcg aaacaagaga agggaaagtaa aaggttaagaa 60  
agagggaaagg tttacgagag aaggaagtag aaagaagaga gtgttaaggcg gcgtcataat 120  
agaaaatccga aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta 180  
ctgaagacccg acacaggtac tcgaggagaa aggagaccca aattaaggtg agagaatgga 240  
cgataaggaa ctaggcaaaa ggatatggta tctgcggtag aacatatgaa agaagcagca 300

ccgactgttt agcaaaaaca cagcactctg cagaaaagag aaaatgtaaa gtatagagt 360  
tgcggcctgc caaatagtag agaagaaatc gatgaaagtg aaagcgagta aaagatgagg 420  
tatagagaat ggccgtccta acag 444

<210> 4855  
<211> 420  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-050-Q1-E1-C12

<400> 4855

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tggatgtccat gggatctcct atcatggaaa aacaaagatg gtatccttct acgtattcta 120  
gttattccttc ctattcctat ccgggtgtatc cttccttattc ttatccggtg tatccaactg 180  
ttcaaccctta tggttatacct acagtgcagc catatccaac ttatacgccg tattattcct 240

ccagttattc tacctataca caaaacagtg gattctactt tcccaattat tcaggacctg 300  
ttcanatcta tcctctgttt tcctaaatgc cggaaccaat gatagttcc tttccgata 360  
atgtgttggg ttttgttct tcttttcga taaaacttgcg gtttggattt aaaataaaaa 420

<210> 4856

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-C5

<400> 4856

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tctctagtt ccttctatt atttggagtt gtcatatatg cagttgcagg acctctcaaa 120  
gactctcata tagttccaa ggtagagga tacagcagtc aatatactcc aacctagact 180  
agcgagata ctccaagcta tagtagtgaa tagactccta gctatagcag ctcctatagt 240  
ccagttatt cttctccta tcaatccta tacagtccta cctatacaac ttatcgatgg 300  
attcaacctt gtgctcaagc ttgtgcggga tgccttatt gctatcaaca atacaatttc 360

tattatcgct acggcttga tatcctctac tgcaagaact ttgacaaata ctgccccatct 420

ggatatg

427

<210> 4857

<211> 401

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-C7

<400> 4857

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ggaaggagta gcagtgaata ttccaaaggt ggcaactttt ctccagaagg gggttcatct 120  
cctaaattgg gtagcagtcc ttcgaaacta agaaaaagtc ctgcgcgtca agaagttgg 180  
agtaaaacag tgcatttttgc ggggcgttct tactcaggaa agaaacgtta tgacaccgtg 240  
gagaaggaca cagagaagga accaaatata tttgagatac atgatctgtc gaagaaacag 300  
agcgggagcc aataagaaga gagtttgtga gtttcaata gaatactgtg cttgttgttta 360

taatttctta taaatgattt tacatgttgt tttaagacaa a 401

<210> 4858

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-C9

<400> 4858

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cgttttgtc gtctgtccgt ggaccgcaaa tacaaggcatt caagcacctc tttattggat 120

atcatttcta tggacaaggt agaagaacta aagtcaactgg tcaattccgt ggaagaagac 180

tgcaataaat ttttgagaa cgaaaacaag tcagctggag ttagagcaag aaagaacttg 240

caagaaatca aaaaacttgc tcaagaacta cgcatagaga tacaagcgac gaaacaaact 300

aaaaagtgat acttcaact gtgcagaatc aaccatggct tgtgaaacta ttccagttt 360

tcaaataaat accttttgc gttttaacc caaaaaaaaaa aacaaaaaaaaac aaaaaaaacaa 420

aaaaaaaaac acaaccacca acac 444

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<210> 4859

<211> 57

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D1

<400> 4859

ggtcgacgca cgcgtccgac cacgagtccg acgaagaaag agaaagaaaa aaactga 57

<210> 4860

<211> 457

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D10

<400> 4860

ttcccggttc gacccacacg tccaggcaga tccagtaaaa gtgtacgtcg gaggtctcga 60

agtggtagca tccgaagaag aagaagtgcg agtagagatt catcagccga gagagaaaaat 120

agcagggtcca ataacggaag tgacaatgag agtgagcgctc cttcgcgact ttgcgcgagaa 180  
aatagcagaa agcgtcggtt aattgtatcc gttgctgggtg gtgtgacggc ttctgaaatg 240  
cttttggctt atgaactttc caagaactcc aatcatgatg ttattattgg tggctctgta 300  
atattgacac cgaggaagtt tattgagaat ctgaacaacg tagtgcaaga ttttggaaat 360  
ggtaatcaac tttctcccgc tggttcgtcg tccgcattga gatagttcg gatattccca 420  
atctcatcga ataaaagtgtt caacaacgtt tgtgttg 457

<210> 4861  
<211> 282  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D11  
<400> 4861

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tacaaaaagt cataattaaa gtcgactcct ttcatatctt tttccagtg acctagtatc 120  
tggaaattgct ggtccagcaa taaaaagcct cctgggttgt ttgtaaaaaaaaaaaaaaaaa 180  
aaaaaaaaaaaa aaaaaggaa aaaaacaaa aggataaaaa aaaaaaataa aaatgaatgc 240  
aaagtcaaaaa ctcttctaatt aatgtcacaa aaattcaatt ca 282

<210> 4862  
<211> 149  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D7  
<400> 4862

gtccccgggtc gacccaaacg tccagtgaat caaacctcaa gacagcttta cccctcgctg 60  
actgacacgc gatggcagta agcatgtgat tgattcagga tcaagttgac ggacacagac 120  
gagaaatacc aggaaattgt tcacgtcag 149

<210> 4863  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D9  
<400> 4863

cccggtcga cccacacgac cacccacgac tccggccacg cgtccggac aagtcctcaa 60  
gacgcagtt tatcaacaat tatcagctga ttcatgtcg acgaggacag ttgcactat 120  
tctgaaaact tgggtaata ttacccattc ttgtatgt tcttttga aagacttgaa 180  
atgatggata tatactttt gtcggtagaa tgaaagctaa acctgtatac tatcgagatg 240  
cgatattgtt tttagaagca atttgattt ttcttttttgc tcaacgtac tacatttgct 300  
tccttttga atatatgata ttgtacaagt ttgtacgtt tgcagcatga gactggcaac 360  
tttgaacat cacaactctc tacgagttgt tagtaataca ccataaaccg gagatgagca 420  
atcttcagat tcc 433

<210> 4864  
<211> 445  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-050-Q1-E1-E12

<400> 4864

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ctggatatacg aaaggaagag tgcgttttgc aagccagata catagcagaa tatcagtttgc 120  
gtactaaatg atgtacctct acattatatt tgcaagagag ctcaatagaa gaagcaagtg 180  
gcttttaact aatgttttgc gcattccttgc ttatagcgac ctcagcgtt ggagaatatt 240  
tatatttttgc tatgtttatg tgttctttaa taacgttata ctgttataact ttatacggtt 300  
gaatttataa caatgctgtg gaagatgttgc tggtggaaac gtaaactttgc ctgaaataaa 360  
gtcgtgtcta taccgattaa tttatgagga aactcggttgc atcgtcaagt ttctaaatgtg 420  
ttttgcggat gccttttttc agaaaa 445

<210> 4865  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-050-Q1-E1-E5

<400> 4865

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ctttgcattt ttcgaaaatt tggttatatga acgacgtagt cgtcctactt tggtgatgcc 120  
tctgtggaaa gctgctggat tttctttggg agctttgact gcgctcggt ggagaaaggc 180  
tgctatggct tgtacagttt ctgtagaaga agtaatatca caagattaga acgatcaaata 240  
acgtactatt catgagaaga aatggcagga tgaagaagca ttgagagaca cgttgagaga 300  
gttttagagac gatgaaatgg aacatcacga cagaggaata gaatatgacg ccgagtcgtt 360  
tccttttat cgcgctttga ctcgagtcat tcagttgggt tgtaaagctg ctattgagat 420  
tacgcgtcga gtataaaag 439

<210> 4866

<211> 238

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E7

<400> 4866

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ccccgggttga cgcacacgtc cacggtagga cgccatattc cgtttccgt tggtttgtac 60  
gcacgctatt acatagccag ctgtcgccg tttgcttagtg tagtgaagga gatcaacaag 120  
ggaagaggag cgtcgcaaac cgagccttttgaagacgagg agggtttca aacggtcgtg 180  
aagagacagt aacagagtag ttcgaaatgt tccgaagact gcaggaggcc cgcgagga 238

<210> 4867

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F10

<400> 4867

gggcccaccc aaacgtccgc ccacgcgtcc gctaaagttt cggagctcct tggggaaaag 60  
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ctgttgagac caaagagatt ggcgaaaaat tttcccttga agagttctgg cagtagaattt 180  
tcttagagtct ttttgagaca ggacttaata aacctgtgg acgcactggt ggatgaggaa 240

aatactaacg agttgaatat tttatctgct gctagtgggtt taggcaagag tatatatctt 300  
tatcttatcg ctgttttgc ccgacacttt ggaatcccag tgcagtatat tggaaataca 360  
ggagatctgc tcagagatcg ttctcatgaa gagttagaag ctagcaacaa ctttcagca 420  
ctgctgtgt tcataattt gaagatt 447

<210> 4868  
<211> 453  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F11

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gactttgttc gttctattca atggacagaa cccttcataat tgggttaat atgtgctcac 180  
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tttttcactt cagttattac tgtattcaat gtgaagaact tgaacaagtt agggtctgag 300  
aattggaaac aaatagctag caaaaactat ttcgacgaga acggtttctt tatatttcta 360  
ttttagctt tacccctgtt gttaatttgg aactttatta tggtgcacaa tggttatgg 420  
gctttacaaa ctatcaagga aatttagacga gag 453

<210> 4869  
<211> 458  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-050-Q1-E1-F12

<400> 4869  
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ttgggaacga tcatgcaatg gagagggaaat gaaacattgg cacaacaatg cttggatagt 180  
ataagaagaa aggattcctt gccatgtttt catgaatcgg agtcccaaaa gaatatctgt 240

tcctgtgatt atctgctgga ctatagtatg tggcatgtt tggagagttt tgtggtaag 300  
cagcgtagta gtagcgataa taaggaagat gtttctcctg ttacgtggat aacgaaagaa 360  
gatacatcg aatgctgtcg ctatgttg gaaactggtt taacagcaat acaggaagaa 420  
ttggaatggg aaaaaaacat tgcatnagct aaagtatc 458

<210> 4870

<211> 456

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F9

<400> 4870

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aggaaaaact ttggaaaagg aacaagtcca ggaactgctg aaaaaggtaa aaggttggaa 180  
cgtttcctct gataataagc aaatttccaa aaacttgcaa ctgcctgatt ttatgtcggc 240  
tattcgatat tttcagaaaa tagctgatgt agcggaggct gaaggtcatc atcccgattt 300  
gcatttgact ggtataaca aagttagaat tgatctgtca actcatgctt tgaatggctt 360

gactgagaat gactttataa tggctatgaa gattgactct cttggacaag gagcctgaaa 420  
agatattttg cgaaataaaag caatagaaca atcagt 456

<210> 4871

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G10

<400> 4871

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tcactacgaa caaatataca agcagcctt aagccaaaaa gtcacatcac acaactcaaa 120  
actcagtttc atctagtgac ttggaaacta ttattcgaaa attggtgaa aaaatacatc 180  
tcgattctt acaacagcca tcactggtgg aagaacaaag tacattacg agacaatcag 240  
catcttaat accagagcca acatccacag gaccttctga tttgttgctg tttcctccac 300

aacaacttgg tcccaatgtg gtgcgcattc cttggaaagg atccaatgtt cgaacgttag 360  
agttgcacat caatgtggtt gctgaagagg atcttcgagt ggcctcacct actgcaatat 420  
tagcccc 427

<210> 4872  
<211> 449  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-050-Q1-E1-G11  
  
<400> 4872  
  
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ggaagaagaa aatattcccg aggacgccaagacttggcc acctatgttc aaaacttgtt 180  
gtctcagatg cagagccgtt ttcaaaccat ggcagactct atactatgca gaattgacga 240  
gatggtagt cgtatagacg aactggagaa gagcatcgat gagttgatgg aacagactgg 300  
agtaaaggaa ggcgatggaa cagagtctgg tgaggtaact acgacaagtc gtggggagtg 360  
aatgcttcgg ttgttagtacg ttggatatact tccatagtag ctcgtactat ctatccattt 420

gtggttgcgt cgaagaataa aagagtgcg 449

<210> 4873  
<211> 448  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-050-Q1-E1-G12  
  
<400> 4873  
  
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gaagagagag aatcatgaag tagaggaagt ggggtaagag atgaaagacc actgcatgaa 180  
gataaggaat ctaactgagt aaggaaaata agcttaagct aatttggctg gggaaagtaaa 240  
gcctaagaaa gagtaaatta tgcaaggaaa ggcatgagag aagtataata gcagaagcat 300  
gcttgaagaa aaagaaaagag atttcagaaaa gggaaagaaaa gtcagctata gagaacaagt 360

gaaggagaac tcantaagat gagagcacccg aacgatcgaa gaagaaactt tggggtaac 420  
acgttaatgt ggtgttagag aacgtatc 448

<210> 4874  
<211> 453  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G9

<400> 4874

cccggtcga cccacacgtc cgcccacgcg tccggtcgt tacttgatgc agagacaat 60  
ccccatttca gaactctcaa aggagcaatt gcagatcttg tacgataaaaa tggacaaga 120  
actcgAACAC ttgaggagca gtcttcgtac tctccatacg gcagttagcc gtttacagag 180  
aagtttgcag tgtttagatt cccttctca caaagaaaag gttctcttg tgatggttcc 240  
tctaactagc tcgctctatg tacctgaaag tttagcagat acaaagactg tccttgtcga 300  
tattggaacc gtttattatg tcaaaagctc aattgacaag gcggaagatt acctcaagaa 360  
gcgttggaaa acagtaaaga cggaagttaga aaaactccaa caactagtat ccacgaaaca 420

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agagcaatat gaatatgtat ccgtggctct acg 453

<210> 4875  
<211> 330  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-H10

<400> 4875

gacccaagcg tccacccacg cgtccgcccc cgctccgcg gacgcgtggg atgtaaaata 60  
gttgacaagg gtttattgca aaaaggttga atagtaactc gttcttatatg gttcggtttag 120  
tattgtctag agacaagtgg gacaattagt atccaccttt atcttcgcattt atacataaat 180  
atatttattt atttaaaaaa aaaaaataa aaaaaaaaaa aaaaaaagaa ataaaaaaaaa 240  
aaaaaaaaaaa aagaagaaaa aaacgggggg acgccccaaa gttcaagct ttagatgtca 300  
gtactggcga cttatggca cttaaaaagg 330

<210> 4876  
<211> 428  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A10

<400> 4876

aatacccgaa ccgacccacg cgtcaacgga cgcggtggcg acaacgaatg aagtcagcac 60  
agccttacca aacaacttagc caaggatatg aagaaggaat tcattggagt agaagaatat 120  
ttcataacaag gaatggaata ttggctctcc tgctttatca tagagataaa gtgttgttc 180  
aaaaagtcgt tggatattta ttagtattgt tgatatgttt ggagtgtatt cggttgcata 240  
gtagttggct gaatgagttg gcaagtcgct tattttatcc cattatgaga aagaacgaga 300  
ctagacgttt cagtggaatg ggttattatc ttgcgggagt ctgttatgct tcttggatt 360  
ttgactcggt tgttttgat ttgggttta ttcatttggc tattggtgat cctattgctg 420  
ccatTTTT 428

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<210> 4877  
<211> 358  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-051-Q1-E1-A11

<400> 4877

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aacacggagg acgacagtag cgatgggatt gtttagtaga ctgtttgtaa aaccgagtcg 120  
tgtaccgcaa agagtcgtag agttcaaaa gcgcaggcg gaaggctact ttacatacaa 180  
cgccggaaag tacgaccgat acatcaacac acctattac ctgtttgtt ctttcaccgg 240  
tctttatgcc ttatttgacg gttgtcttg ggccgcagga aagaaggaaa gtcaatcgtg 300  
aatagcgtnt ttgtccttg tggacagtct tatgaactag tgattcgaaa gttctgcc 358

<210> 4878  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A12  
<400> 4878

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ctttcggag gtaatatgtc 60  
gtacaacgaa ctggtaaagt ggcagcattc acaaaggaga aagcagcaag ttgatttagag 120  
catctataca tatatatatcg taccgacagg gatcgggaga gagagaaaatt ttacagtctg 180  
tgcattttc ggtgaacaaa tgtggatatt ttgcgttcca ttcttcaagt tgtcgacatc 240  
gccatctatc cgagttgtaa aacagagacg gatcgaaata acggtatcct gcaatccatt 300  
ctggaggtat acgttgaga caaagctgcc gcatttcatt gactcggAAC actttacctc 360  
tcacctgtcg agattcatta gaaattcttc ccaacccatc ataccacaat aatttcggt 420  
ccagattgtc caacgag 437

<210> 4879  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-051-Q1-E1-A3  
<400> 4879

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atgagaatac gtcgttgaa cgaacaagga gaagaagaag acaaagaaga cgaacaagaa 120  
gaaatgcaaa gtgaagagtt gacaaggagt tgttcggaat ttcttcttc gtattcttc 180  
gaaatggtag actgtataac ctcattgagc gatgacgacg aagagaaaaga gtcgttcgtg 240  
gtttctcgac ttggacaaaaa actggaaag atgctggaaa gttatgcctc gcattgttagt 300  
ggaaaaaaata agactttgtt gttcgtcat gttccggacg acacaccaac gaagcattgg 360  
cttacgcaca agtcaagtt tacaacgaga aacttacggg ttaccttgtc acctggagtc 420  
cgtcgaagaa ggaagaataa gag 443

<210> 4880  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium  
<223> unsure at all n locations  
<223> Clone ID: LIB190-051-Q1-E1-A9

<400> 4880

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gaatggcaac agataaaagtc agctaagaag atatactttt atgtaaaaga atcaaaaact 120  
aaagaatatt tggagctaga cgattcggtt cagcagccag tggattcatc ttgttagcacc 180  
aagtggctgt ttattgcaac cccactgttg gaagttgctt gtactgatgg gcagcgaatt 240  
gaaatgattc ctttgaagaa agatataaaag gaattgtttt tctctactttt aaagaagaac 300  
ttttagtcga acgaagcgta atgggagtgc agtgttagttt aaaccgcagt tgctgtttt 360  
atccagtatt atgaacagtg tgtgaaacag tactatctag caagcacaga ttatgagcta 420  
cct 423

<210> 4881  
<211> 396  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-051-Q1-E1-B1  
  
<400> 4881

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aattcccgcc tcgacccacg cgtacgcccc cgcgtcccgcg atttggaaaa ttgcaaata 60  
gccaaagtgt ttgttgttag tgtacgaggg ttggtcattt gttgagctga agagtcaatg 120  
aacaagcttc agttgctata cgtaacccaa caagctgttt caaaagcatg gcaaagagaa 180  
cagaaaaagg tatactccga gaagaaatca gttgcagaag gaactttggg aagcagggtgg 240  
aaggaaaagag aaactgcaca agagagcgcg tactttatc gtgaagatga gcaggcagta 300  
caaaggttag cagcgaaact tcggcagcaa attgagccat cggaggaagt actcgcccaa 360  
caaagaaaaag gcgtggcaga natcttacaa aaacac 396

<210> 4882  
<211> 370  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-051-Q1-E1-B11  
  
<400> 4882

acccacgcgt cagcccacgc gtccgcccac gcgtccgttc cgattccggc aaaggaggag 60  
cctttccaa actaggcata gtatggatag aggatangag agagggatgg gtatcgagtt 120  
ggggatcgta gtagatggca aatgtgtgtg gagtattgtt ttatcacgt aaacactgtc 180  
ttcaactaaaa aaaaaaaaaaca aaaaataaat caaaagaaat aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaaa aaaaaaaaaata aatgaaaaaaaa aaaaaaaaaa cattcaaaat taaaagaaaa 300  
aaaaaaaaaggg gggccccca aaaggattca accttactta cccgtgcattg caaattcaaa 360  
gccctccaaa 370

<210> 4883  
<211> 373  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-B12

<400> 4883

taccggtcac gaattaccgg gctgacccac gcgtcaaccc acgcgtccgc ccacgcgtcc 60  
ggaagttaaat agacgtttga aaggcgtcca gtatgaaagg agaaacgagt gtacgtactgt 120

ctagtcgtcc aactcagcga aacagcaata actgtaaaaa tgcattaaac taccattagg 180  
acggaaaaac cccataatcc tggacaaaat aggttaagga aggaaaaaaaa accataaatt 240  
aaagaagttg gggtaaaaaaa taaagaacaa tgccataaga ataaggaatc taactgatta 300  
aggaaaataa gcttaaccta gtttgctgg ggaattaaag cctaagaagg agtaaattag 360  
gcaaccaaag gca 373

<210> 4884  
<211> 376  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C1

<400> 4884

ggtaccggtt aggaattccc tgctcgaccc acgcgtacgt ttttttttt taacacaact 60  
attctttatt ttgccaaacc ttgtgccttc actcgaaaaa tgtgtcttcc tttgcaaaaa 120  
tcggcataact tttgcgtcga taataatgctg caaacgaaag actagcggca agagctaaaa 180

caggggcacc aacagtcagt gatggacaaa cctcaagtgg atcattccac gttggtaaag 240  
atagacttgt ctcaaggcag cttaatgta ctccaagact gtgacaaga tttagaatgt 300  
gatcataatg ccaagttca gttgaaactt atgcagtacg gtcttttc acctggctgt 360  
cggaatcgat aaaaatg 376

<210> 4885  
<211> 207  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-051-Q1-E1-C10

<400> 4885

ggtcaggaat tcccgggccc acccacgcgt cagggctccc gacgtttt ccctggatgc 60  
agatagcana gtgactagaa atactacgac ggaagaaacg gaaacacatc ctttgcagt 120  
gcctcgtagg gaacctanag gaaaggtaag anagagagct ctatggtag gtttaataaa 180  
tagcatagca cctacaaaac gatgttg 207

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<210> 4886  
<211> 294  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-051-Q1-E1-C11  
<400> 4886

acccacgcgt cagagagaat aaggagagga tagaaagaat gtcgggctgg tttgtttgt 60  
acactttcgt tgtatTTAA caatatgtaa acaaaacctg tacgtttgt agatataact 120  
ggTTATGACT caatgttagt catagctgag tgaaaatata ttAAAacta caacatTTT 180  
gttcttgttt aaaatagagt caaaaacaata aaagtggccg tgtactcaCT tgccTCCACA 240  
tatctacaac taaaacaAGC ctctcgTCCT cacacgcATC CCTATGAAAAA aggg 294

<210> 4887  
<211> 197  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C12

<400> 4887

taccggtcag gaattcccg gccgacccac gcgtcaggcc attaaagttg gtaggcaacg 60  
atggatatgt tctaacagaa gctgggttg gtgcagacat tggttggag aaattcgtga 120  
atattaagtg ccgtgcttct ggtagttc ccaattgtgc tgtagttgtg gctacaattc 180  
gagcttgaa aatgcatt 197

<210> 4888

<211> 108

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C8

<400> 4888

ggtaggtat ggaattcccg gctcgaccca cgctacggta aataataat ttgcacgcaa 60  
ggcgccgga ctgcaccgtg ttgggtgtaa ttgtggtctc agtaacgt 108

<210> 4889

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D12

<400> 4889

ggtaggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gcccacgcgt 60  
ccgcccacgc gtccgcccac gctccgccc acgcgtccgc ccacgcgtcc gcccacgcgt 120  
ccgcccacgc gtccgcttgc atttggtaa aagacaaaga acttggttat tctcatattc 180  
ggtttagtag gtatgctgat cgaaacttat gttccattt tggaaatgca gaaaaatccg 240  
gagttttttttt ttgtatggc attgttctcc tctttctttt gttgtacaag tttacaacaa 300  
aaagccccgc tttgggtttt atactttca tgtaaatttt cctttc 346

<210> 4890

<211> 66

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D2

<400> 4890

tgcctggtcc aactttcgg ttctatcctc acactctgta cagggtcgac ccgtgcgtgg 60  
aaagcc 66

<210> 4891

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D6

<400> 4891

cgaccacgc gtacgcccac gcgtccgctt ttttttattt aaacacaaga cttaacgagt 60  
agtgaatagg cgttttactt gttttgtta tagagttgaa cgaaactttg aaagattccg 120  
tagcttgtca tgtctgttat ttgctcacct cggagcttga cagagagttt cttggttcga 180  
ctccaaatag taagcttaag agactgtttt gtcacactcc agcatggtgg gatccct 237

<210> 4892

<211> 399

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E10

<400> 4892

gggccgaccc acgcgtcagc gatcttggc tttatcgctc agtcctgaat acgagcatat 60  
tccagaagaa gaacgaaaaaa aggtttgga caaggtcaa gaggcagaaa attggctgtc 120  
tcaacaaatt cccatatttgc agaaactgca aaaacatgaa gattgtccag ttagtgtac 180  
acaattcgt cagaagagta aggcaaggta acagtttgc caaccgatta tgaatcggtcc 240  
caaacctgct cccccctaaga agaacaagga ggaagagtca gcttcttcta ccaccaacaa 300  
ggataatagt acgacaacaa cccaaaaaga ggattttctc gagcagatgc agacagaaac 360  
agaggacgac aagagtgcgg aaaacaaaga ttccccat 399

<210> 4893

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E12

<400> 4893

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catgttggaaa gagggtacac gtatattgtc cgatctcaag tttcaggtgc ttcaagatgg 120  
aaaacacctcag gtgataactt cggatcaagt attcggagga aagaaagtag tattgtttgg 180  
gttacctgggt gcctttactc caacctgctc taggcagcac cttccaggct ttggacagaa 240  
ggttgatgaa atcaaatcga aaggagtaga tacagtcgct tgtagctg tcaatgaccc 300  
ttttgttatta catcagtggg cagagtcaca gggagtggca ggaaaaattc tcatgttagc 360  
agatggtggt ggcgaatctg tcaagaaact tggactggat atcgatactg gtgac 415

<210> 4894

<211> 314

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E3

<400> 4894

cacgcgtaag ctacaagcaa tttccatctt tttccctcag tcattttac attttagtag 60  
atgtacaaga ttttttcaa tgtcaaaaaa tattgcacaa tccaccatc gaagcacgaa 120  
aaaaaaaaagcc ttccgactct ttctttctat actttgcaa tgagaagaaa atgatacata 180  
aatcatcgg caacggattt gatgctggtt tagaggcggtt caaccatagt ccaacaaacg 240  
tagcgtcgta ccatggccta tcggccatat gaaagaccag aggtttgact ccagcagttc 300  
catcgctac tttt 314

<210> 4895

<211> 381

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E6

<400> 4895

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tgctgctgct tcctgaagaa gagattgctt cgacgcaaga tgtccaacaa catcaacgcc 120  
tttatcaatc cactcttctc ttgtcacaag gtatccttc aagacgcca gaaaagtatt 180  
tgttggcaga agaagaaaatc caggccagtc aacccgaata gtctcgttat ccagtcggtt 240  
gcctctccac cagtcaaagc aaacaaactc tttcaaatat cttgtgact gacctcggca 300  
tttgcattt catcccattt cttgtctaca gaaggcactg gagaaccttt gggtgtcgat 360  
gaccctcctg tggtggcgt g 381

<210> 4896  
<211> 337  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-F11

<400> 4896

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atcgcaaaaa ggtatgtgta gagtcatcga agtctccatc taagacaaac tcgggagcct 120  
ctctatcgta taatagtcgt ttttgcgaca ggactagaca tccgtgact caggattcag 180  
ccactaattt taactatcag gaacacgctg gttcacacca catagtagtt gagagtgtgt 240  
cttcaactag ggtttgcct gattgtcgta tagctagatt gacgacttca catagttct 300  
tgtcctcaat atgtatTTT gatacacgtt acatatac 337

<210> 4897  
<211> 364  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-F3

<400> 4897

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tgcactctcg tctgttggaa agagctgcc aaatgtcaga tgctcacggt gctggttctt 180  
tgaccgcattt gcctatttatt gaaacccaag ctggagatgt gtctgcctat attccaacga 240  
atgtgatttag tataaccgat ggacaaatct ttttggagtc agaactgttt tataaaggcc 300

agagacctgc catcaatgtt ggactttctg tttccagagt tggttctgca gctcaaccga 360

aatg 364

<210> 4898

<211> 369

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-F5

<400> 4898

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agcagcgttg agtaatttct gaaacacaaa tatgcgtgcc aagtggaaaa agaagagaac 120

acgacggttg aagcgcaaga gaagaagat gagacagcgt tccaagtaac ggaagaatcc 180

tcggacgtct gagttgaata gagttctaa aacgtggaa aactctattt gcaactctgg 240

cgcagtgatt atatcctgct acggaaggtt ggaagtgttt ccgaggattt ttgcgaagtt 300

atgataaaag gttttgtgg tttttttt caacttgtaa atgccacttg tcagtcattt 360

tattcgagt 369

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<210> 4899

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-F6

<400> 4899

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gaggaaaggt ttacgagaga aggaagtaga aagaagagag tgtaaggcgg cgtcataata 120

gaaatccgaa aggagtagaa gaaaagagag agaagaaaaga aaagaagaga aaagccgtac 180

tgaagaccga cacaggtaact cgaggagaaa ggagacccaa attaaggtga gagaatggac 240

gataaggaac taggcaaaag gatatggtat ctgcggtaga acatatgaaa gaagcagcac 300

cgactgttta gcaaaaacac agcactctgc agaaaagaga aatgtacag taaagagtgt 360

gc 362

<210> 4900

<211> 350  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-051-Q1-E1-G10  
  
<400> 4900  
  
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gcaaatttag ccatacgagg aagtactcgc ccaacaaaga aaaggcgtgg cagaaatctt 180  
acaaaaaacac ggtgtccagc ctaatcaaag tttgattgaa gatattgtcc gtttcttca 240  
ataatccctc cgtgttgat gtttagctgc ggttcaacta gagtttgaa tggaaacacg 300  
ttggatccag taaagaacaa aagaacttct ttgtaaaaaaaaa acaaacaaaa 350

<210> 4901  
<211> 454  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-051-Q1-E1-G11  
  
<400> 4901  
  
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taacaaaaact cacgttttat gtatacgctg tggcgaagg gcgtaccatc tacagaagaa 180  
gcgttgtgct tcttgtgggt acccatctgc taaaaagaga aaattcaact ggtcgaaaa 240  
gtcgaaaaaga aggcaacga caggcaactgg tcgaatgcgg tatttgagac acctaccgct 300  
acgattcaaa aatggttta gagaagggtt caaggcttct tctaaacgtc ctgctccagc 360  
accttcagca gtataataat tgacaacttt tgtcaaaata taaaactcgct cccagttcaa 420  
acagatgaga caataaaagcc tttcccttgg gttc 454

<210> 4902  
<211> 421  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-051-Q1-E1-G6

<400> 4902

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cctttgcaga aatacactgc tctccgcaag tggttggag tgtataaata tgattgtcac 120  
agaaagaacc tccttcgac atgcctctcc cgagttaata gaaggatggt tactaaagga 180  
agggaagctt tttagaacca aagacaagag atatctgcga atagccaacg gcacccttc 240  
caaccacaaa gcggagaatg aaccagcaac ttgggatttg gatctaacag agtgtaaagt 300  
gagagaaggt cccagaaaat atgaaatacg cctcgagcta cctaacagag tcgtttcctt 360  
ttttgcagac gaatgacgag accacactag atgggttacg ggttttaaa cgagcaggtt 420  
t 421

<210> 4903  
<211> 378  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-051-Q1-E1-G8  
  
<400> 4903

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aatgtcgttg aacctagcaa ccactttct tatccaagtt tctatccaga gaatatgcc 120  
tttcccacag gatatcctcc tcctccatg acttcaggag tatggccata tccgtatccc 180  
ccatttccgt atttcggaca atccttgcg cctataaata atgactatag caccaacaat 240  
aatattccct ggaaagattc atctgtcgtc agtgcacatcg aaccaaactt ggtggagaaa 300  
ccgaaagtca atgaaagttc tatgaagaga aagcatcatg gatgagagga ttagtggacc 360  
gggcgttctt catcctcg 378

<210> 4904  
<211> 416  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-051-Q1-E1-G9  
  
<400> 4904

ggtcagaat taccgggccc acccacgcgt caggttgggg gtggttcggt gatgaccttt 60

ctactcatac ttgccttgc tgcgggttat ttttggcg aacgaggcaa aaagaagaaa 120  
agtccgaaat atagttgggt accgcctacc ttaaaccacc tttcagagtt tccagcgaat 180  
tcgaacaaca gtcgtggcac agttagaact tgtaaagaag agtgtaaatt ggtactttgt 240  
gttcgttccg atttgaagat gggaaagggt aaaatagctg cacagtgtgg acacgcaaca 300  
ctcggtgccct atcaagatac acttcggacc aaccctggtt atttatggaa gtggaaagca 360  
gatggtcagc caaagattgc actttcagta tcttctcttc aagaaatgaa aaattt 416

<210> 4905  
<211> 289  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-H11

<400> 4905  
  
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ctcacgcaaa gttggatcgt atttgcgtc ccgtgttgag tagaatagaa tatcttcggg 120  
atactgacaa taggaagatg gagatcgaaa gggaaaccgat caagtcgcta ccacagattg 180  
caaatgtgga atcaacagag taattggttc catccctcat cacgtctctc ggctgcatac 240

cgagcaattt ggttccacac tataaaaatc cggcccacccg taacgtaga 289

<210> 4906  
<211> 286  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-H2

<400> 4906  
  
tcaggaatta ccgggtcag ccacgcgtcc gattaaaaat catggtagac accaatctt 60  
atgacgggtgc tagtgctgct ctggactt gcccggcagt tctctagaca attgtgtcag 120  
cattttcagc aacaataatt ggacctgatg gaacgaaagc agataacata tggaacgatg 180  
ccctatatta tcatggaaaa gtggtaact ttgtgcaga ttccggcgtca tcagtttttg 240  
aaagtggcga tcatggagca tgtcaacatg tggatggcatt tgcttc 286

<210> 4907

<211> 293  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-H5

<400> 4907

cccacgcgtc cgtgtgtt tgtgaaatta aaagcttgcc gtgttaaaaa aaaaaaaaaa 60  
aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaa aagaaccaca aaaaaacaaa 120  
aaaaggcag ccgcccacga ggatccaacc ttcgatccgc ttgcaagcga agtccgggcc 180  
ctccccagtgt gtccccctaac ttcgtttaac tggccgtctt tttccaacct cttgactgga 240  
aaatccctgc cgtcagccaa ttttagccacg ttgcccgaca tcccccttcc ccc 293

<210> 4908  
<211> 356  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-H6

<400> 4908

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tgttccccag ggagaagcca agtattttatc acagagaata gtttattact tgtttgtttt 120  
acaagtgaaa cgagaaaggg tctcttctag gagtatgcgc atagatggac ttgggtggta 180  
cctcaaaact gaaaggcgaa aacggcagaa atcccagggt agacggtaac aaccttccaa 240  
tagaaacatc ggaaagagat gaagagacta cagaagaagt tgtttcttca ttctggact 300  
ggcacatttt ccgtagaatc ttaaacttgg gaagttgact gttacggctcg catgtg 356

<210> 4909  
<211> 421  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-A12

<400> 4909

aattaccggc tcgagccacg cgtcagccctt atcggaggta atatgtcgta caacgaactg 60  
gtaaagtggc agcattcaca aaggagaaag cagcaagttt attagagcat ctatacatat 120

atatcggtac cgacagggat cgggagagag agaaattta cagtctgtgc attttcggg 180  
gaacaaatgt ggatatttc gttccattc ttcaagttgt cgacatcgcc atctatccga 240  
gttgtaaac agagacggat cgaataacg gtatcctgca atccattctg gaggtatacg 300  
ttggagacaa agctgccgca tttcattgac tcggaacact ttacctctca cctgtcgaga 360  
ttcattagaa attttccca acccatcata ccacaataat tttcggttcca gattgtccaa 420  
c 421

<210> 4910  
<211> 189  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-A3  
<400> 4910

acgcccggcag tacggtcagg aattcacggg tcgagcgcac gcgtcaggca aaaaacctca 60  
catggaggtta tgactcggtt gttactgcag tctggagcag gaattattcc ttcaacactt 120  
ttcgttagtaa ttgtgtttt gtgttagttt ttttgttata ataagaataa agaaagtcca 180  
gagttgttg 189

<210> 4911  
<211> 450  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-A6  
<400> 4911

acgcgtccag gtaccggta ggaattcccg ggccgaccca cgcgtcagcc caagcatccg 60  
tccacgcgtc cgcgcatgca tccgcacacg cgtccggaca caatatatca aaagttttag 120  
attggatgaa tgctgatgaa atgttatcga gaggcttaa agaacatatt tatgaggttt 180  
tccaatatacg gcctgcacac tgtcaaattt gactttctc cgccattatg ctgcaagatg 240  
tacgagaaat gacggagaag tttatgagag atccagttgt gatttggtg aagaaagatg 300  
aacttacact ggaacgtatc acacaatact atataccact ggaatcgac gagtacaagt 360  
ttgatactt acgtgacctc tacgaaactt tgactgttac gcaggctata acttacgtga 420

ctacacggag gaaagttgac tggctcacac 450

<210> 4912  
<211> 377  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-A8

<400> 4912

cccgccccga cccacgcgtc aggaggtgta tcatgcacgc aaagaagtga cgcaatgtat 60  
cagagagtaa cacatgcacag tagttaaagc gaacgggtga gttaaagaggt gtgaaagagt 120  
ggaagagcat gaaagcacag aagaatgtaa gaaatggtag agtaaaaaacc atacaggaag 180  
taaaagcggg aatctgagag gagaaagcc acattggac tgagaaaagg tccatacaag 240  
agaagtcagc agtggggaaa attggcaat gtacaggaa gtatgaccca gtaatgagga 300  
gtggaataaa cagaagagga agtaagagga gggaatgaag ggaagttatg gcaaaaaacac 360  
ctgccagcag cagcggt 377

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<210> 4913  
<211> 128  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B1

<400> 4913

ggtcaggaat accgggtcga gccacgcgtc cgccccacgcg tccgaatggg catagatgtc 60  
atggcaacca aggaaggaaa catacaacac agtcaactcta caaaagacag cctccaattt 120  
caactttt 128

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<210> 4914  
<211> 356  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B10

<400> 4914

gccacgcgtc agcccaagcg tccgtctcag cccaaatgtt agaagaatat gttggcggtt 60

acatgtctca cagactgtcg ttggtagag acttctcgat tctccagatg tgcgaaagcc 120  
aatgaggctc cggtgcgacg tagttccag tgtgcacact ctggaggag tgttcgatg 180  
aagtagagtc cctattcgat aactaccgac acatcagaag gacatattgt tcccggtact 240  
tttcaagat ttgagttct tgactgtcga gtcaacggc caaccgtctt gaagcctagc 300  
atacttgact ttacagtgtc gaatgtatca gatgctgcct ttggagaatg gagagc 356

<210> 4915  
<211> 369  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B2

<400> 4915

ggtcaggaat accggggcga gccacgcgtc cgcccaagcg tccgcccacg cgtccgatac 60  
gggaaagcag taaaagaaga aagagaaaagg aaaaaactga gtatcagggaa gaaaagaggg 120  
agtagatgag gaaagaaaaga tcaaggaagt aagagtaaga gaaggagtaa tgtgaatgaa 180  
agcagggaaag tatttgaaga agagagtgt aagcgcgtac ctggcata atgtcccacg 240  
gagtgaaaga ggaagcaaaa agaaagaaaa agaagtagcc aggtaagacc cgaagctagt 300

tgatcttatg ctgtccaagc caagtaaggc gtaaccagta tccgtggaaa aagatctgga 360  
agagatggc 369

<210> 4916  
<211> 110  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B8

<400> 4916

gaagtccccg gcagacccac acgtcagttac tcacttgtt aacacaactag tcttaattat 60  
cgcaagacct gtgccttcag acgaaagatg tgtttcctt tgcaaaaatc 110

<210> 4917  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-C12

<400> 4917

cgcgtcaggg caataaaagt ggtaggcaac gatggatatg ttctaacaga agctggttt 60  
ggtgcagaca ttggtttgg aaaaattcgta aatattaagt gccgtgcttc tggtttagtt 120  
cccaattgtg ctgttattgt ggctacaagt cgagcttga aaatgcatgg cggtggtcct 180  
caagtatctg ctggcacacc acttcctcat gaatacactc aagaaaattt gcaactggta 240  
aaaaatggaa tgtgcaactt aagaagacat attgccaata cgagagctt tggtataacct 300  
gtggttgttag ctttgaacaa gttccagtac gatgcagacc cagaaataca gctcgtaata 360  
cacatatgtt aggaagcacy tgccttgat gcagtttgg c 401

<210> 4918

<211> 315

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-D6

<400> 4918

ggtatcggtc aggaagtccg ggccgaccca cacgtcaggc caagcatcag cttttattha 60  
gagatccact agtatttacg agtgatgcag tagcatctca ctgttatatg cctacacagc 120  
gtttgtgaac tgaggagaag tatgtgagaa aagacgagag atatctgcat gcaagaggag 180  
atcaaatttc ctgtaatggaa atatcattga gggtgagaat cccgttacc tctttcctt 240  
gtatggagac tgcgttacga aatgtcctgt tctgttagtct ggttgggg tagtacagcc 300  
ttaattttgt gggtg 315

<210> 4919

<211> 402

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-E12

<400> 4919

cacgcgtcag cccaaagcgtc cgccgcagcga ttccatgttg aaagagggta cacgtatatt 60  
gtccgatctc aagtttcagg tgcttcaaga tggaaaacct caggtataa cttcgatca 120

agtattcgga ggaaagaaaag tagtattgtt tgggttacct ggtgcctta ctccaacctg 180  
ctcttaggcag cacccaggac gctttggaca gaagggttcat gaaatcaaata cgaaaggagt 240  
agatacagtc gcttgtagt ctgtcaatga ccctttgtt ttacatcagt gggcagagtc 300  
acagggagtg gcagaaaaaa ttctcatgtt agcagatggt ggtgcgcaat ctgtcaagaa 360  
acttggactg gatatcgata ctggactt tgggttatt cg 402

<210> 4920  
<211> 231  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-E6

<400> 4920

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acacgtatag tgtccgatct caagtttcag gtgcttcacg atggaaaacc tcacgtgata 120  
acttcggatg aggtatgcgg aggaaagaaa gtaggggtgt ttgcgttacc tgggccttt 180  
actccaacct gcgtcaggca gcaccccca cgcttcggc agaagggttga t 231

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<210> 4921  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-E7

<400> 4921

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gtattcgttag caaatgggg tagctggcg acagtcata aactgttcta tcagacagt 120  
aaatgcttc ctaatcaagt gggaaactac caattactt ttcagcacga gtgaggataa 180  
cttgaacaaa tcctcatatg gaatgtgaca caacgtatct caactaagaa acaatgtgaa 240  
atatatccaa caacgtcact ttttattt gagaact tcatggcgaa gcacaaaaca 300  
accacaaaac tattgcgtct gcattctata tcctcgcagt tgaaatagaa attcgaagcc 360  
tatttgaga gtggccagtt gaagtcatct gttgaagaaa cccttctct gtcaaacc 420  
aaaacgccccca atatatgtt tttt 444

<210> 4922  
<211> 406  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F10

<400> 4922

acgcgtcagg aaacgctgta cgcaaaaaat tgaacaacac tacagatagc gatattgcgt 60  
ctgatatgac tggacatata tctgatagta ttgttatca ctcaggagga gatgtcttt 120  
ctgatcaaaa ttccgtgggt tctcgagaag atagtatacc ggagagttac cactcaactc 180  
gtcgtcgtga ttatattgat tggaatactt tgaaaaatca ctccacccctt ccgtatgaatg 240  
aagcttcagc caaactgggt gtatgtgtga cgttattgaa gaaaatatgt cgtcgttcg 300  
gaatatcgcg atggccacac cgcaaattga aatctgttagc tagacacatt gaaagacaag 360  
aacgagcttt ttctgttagca ccagggtag aaaaacctgtc ttatga 406

<210> 4923  
<211> 176  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-051-Q1-E2-F11

<400> 4923

gtctgttaatt ttcacgtgcg gttacaaacg atttgcata tctttgttgg ttgcattcca 60  
tcgcaaaaaat gcattaataa agtcatccaa ttctccatct aagacaaact cgggagactc 120  
tctatggtct aatagtcgtt tatgcgacag gactagacat ctttgactc aggatt 176

<210> 4924  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F3

<400> 4924

ggtctagaat atccgggtcg gcccacgcgt caggaatgca tgcgcttatt gtctatgtatg 60  
acttgtcaaa acaaggcagtt gcctaccgtc aatgtcttt gttgcttaga cgaccaccag 120

gacgtgaagc ctatcctgga gatgtcttt acttgcactc tcgtctgttg gaaagagctg 180  
ccaaaatgtc agatgctcac ggtgctggtt ctttgcaccgc tttgcctatt attgaaaccc 240  
aagctggaga tgtgtctgcc tatattccaa cgaatgtgat tagtataacc gatggacaaa 300  
tctttttgga gtcagaactg ttttataaag gccagagacc tgccatcaat gttggacttt 360  
ctgtttccag agttggttct gcagctcaac cgaaatgttt gaagcaag 408

<210> 4925  
<211> 385  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F4

<400> 4925

cgcgtcagga ttgcatgcgc ctagtgtcta ttagtacttg tcaagacacg cagttggcta 60  
ccgtcaaatg tctttgttgc ttagacgacc accaggacgt gaagcctatc ctggagatgt 120  
cttttacgtg cactctcgac tggttggaaag agctgccaaa atgtcagatg ctcacgggtgc 180  
tggttctttg accgctttgc ctattattga aacccaagct ggagatgtgt ctgcctatat 240  
tccaaacgaat gtgatttagta taaccgatgg acaaatctt ttggagtctag aactgtttta 300

taaaggccag agacctgcca tcaatgttgg actttctgtt tccagagttg gttctgcagc 360  
tcaaccgaaa tgtatgaagc aagtc 385

<210> 4926  
<211> 393  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F5

<400> 4926

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cgagctggag cagcggtttag taatttctga aacacaaata tgcgtgccaa gtggaaaaaag 120  
aagagaacac gacgggtttaga gcgcaagaga agaaagatga gacagcggttc caagtaacgg 180  
aagaatcctc ggacgtctga gttgaataga gttcctaaaa cgtggaaaaa ctctatttgc 240  
aactctggcg cagtgattat atcctgctac ggaaggttgg aagtgtttcc gaggattgtt 300

cgcaagttat gataaaaggt tcttgggtt tttgtttca acttgtaaat gccacttgc 360  
agtcatttta ttcgagtaaa aaaaaaaaaaaga aaa 393

<210> 4927  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G1

<400> 4927

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ttactccgta cctgcaagaa acttaccggc tttggcacgt aactttcca atgtctgtct 120  
ctcgaggagt ggtctgagag ggggatgtt acgaaatgtg aaagtttca accacaaacg 180  
acctgcaagg ttgttatcta cgaaaatgag aggaggcgac catgaaagga gagaacttag 240  
tcgtcctatg cgtacgcttg attccgctt cgacgaactt ttagctttg cgcaggatcc 300  
ctggtccatg ttgcgtctc catggagtct gtcgcccaga agtatggcag tagacacgtg 360  
gatgcctcgt gttgacttgg tggagaagga agatggctt tatgcatacg tggacta 418

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<210> 4928  
<211> 403  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G11

<400> 4928

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aaaatgacaa aaggaacttc gagtttggt aagagaagta acaaaaactca cgttttatgt 120  
atacgctgtg ggcgaagggc gtaccatcta cagaagaagc gttgtgcttc ttgtgggtac 180  
ccatctgcta aaaagagaaa attcaactgg tcggaaaagt cgaaaagaat gcaacgaca 240  
ggcactggtc gaatgcggta tttgagacac ctaccgcac gattcaaaaa tggttttaga 300  
aatgtgtca aggcttcttc taaacgtcct gctccagcac ctccagcagt ataataattg 360  
acaacttttgc tcaaaatata aactcgcgcc cagtc当地 aca 403

<210> 4929

<211> 390  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G5

<400> 4929

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agagaagagt gtaaggtag aggaaatgaa tataatggaa ggagaatggt aatgtatgga 120  
gtaataggag taatgataat gatgacgtta agagggagg gagtaatggg agtacatgta 180  
ggaatgtcat ggttagggat aagtagtgta ataataatgg gaataatggg aatgataaat 240  
gtggtaagta cgtcatataa aagcatggag tatatggaaa gtttacgag agaaggaagt 300  
agaaagaaga gagtgttaagg cggcgtcata atagaaatcc gaaaggagta gaacacaaga 360  
gagagaagac cgaaaagaag agaaaagccg 390

<210> 4930  
<211> 405  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G8

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<400> 4930

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agcaaccact tttcttatcc aagtttctat ccagagaata tgccatttcc cacaggatat 120  
cctcctcctc ctatgacttc aggagtatgg ccatatccgt atttccatt tccgtatttc 180  
ggacaatcct ttgcgcctat aaataatgac tatagcacca acaataatat tccctggaaa 240  
gattcatctg tcgtcagtgc atcgaaacca aacttggtgg agaaaccgaa agtcaatgaa 300  
agttctatga agagaaagca tcatggagga gaggatgata ggacggcgcg ttcttcatct 360  
ccggaacaaa ccgctgagtt tcgtcggaga cattttcga aacgt 405

<210> 4931  
<211> 339  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-H5

<400> 4931

acccacgcgt cagcccacgc gtccgtgtgt gtttgtaaa taaaaagctt gccgtttaa 60  
aacaaacaac agaaaaaaat aaaaataata gaaaaaaatc taaaaaacga gaatgtgcc 120  
acaggtttt caaaaacggc gtaggacta tatctgtaca gtgttccat caactgcac 180  
acgaaggctg ggtcttctat gacatcaagt gaacatgctt gtcttgaaa ctgtatggat 240  
cgctatttag atgcaatggg aatcgttcc aagactttaa tagagacaac ttcacgtaat 300  
tccaaactagt ttgtgtatga tccgaagatt tttgacctg 339

<210> 4932

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-H7

<400> 4932

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agttgcatac atagtcgttt cgatatagtc ttatatggtc gcgtatgtc tgaaacttca 120  
gctctcctat atgtatagtc agtggaaaaa cagtttagct tccttgatgg actcaggtat 180

agggtccccag attgctcaa gtggatgcag aatggtaacg acgtatggatc gatatgaagg 240  
atattggga ctcgtacaaa caggctggct tgctcatgtg ctatctgaca ctgcgttat 300  
caggacattt tcaagtgcctt ctgatgttat tcaaataatcttc cgtaaggacc ataatggagt 360  
tatagatgag ttccatcctc catttactat cggcgacgt aagagagatc atggtaggaa 420  
aat 423

<210> 4933

<211> 314

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-A11

<400> 4933

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attcaacatc atcaaataatgcc aaaggagatc aagaaagatt cttcaaaagaa agaagccaca 120

agtaaaacctg cagcagcaga tgctacaaag acgacagaaaa agtctggtcc ggaagccaag 180  
ttgaaggaa ctggtgcaaa gaaacaataa aaagttgact atgcattgttc ctgttatgtt 240  
ttgtgagttc tttttgatag tttccagcta ttcttttgtt agtgaataaa gagaaaattt 300  
tttatattta aaaa 314

<210> 4934  
<211> 286  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-A9  
<400> 4934

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gggaggaaaag aaagattctt caaagaaaaga agccacaagt aaacctgcag cagcagatgc 120  
tacaaagacg acagaaaaagt ctggtccgga agccaagttg aaggaaactg gtgcaaagaa 180  
acaataaaaaa gttgactatg catgtgcagt cctgttatgt tttgtgagtt ctgtttgata 240  
gtttccagct attctttgg tagtgaataa agagaaaatt ttttat 286

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<210> 4935  
<211> 438  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-052-Q1-E1-B1  
<400> 4935

ggtaccgggc atgaaattcc cggctcgagc cacgcgtcag ggaagaacgg accgagttt 60  
acaagtcgat attgctggag tattcttctc tgccgtttt tcaggagttt tgatggtaac 120  
aaagttcttt tcttgagttt tttatttacg gtagtttagat tccggccttt ttgcgttca 180  
agaggtgaat tccaatagag catttgagga acggaagtac ttatTTTTC attgcgggag 240  
gaaggcgtt tttcgtagct attgctgttc tggccattct gtatgttaagg tggcttaaag 300  
gaaatgaaag aatgcgactt gagttgctgt tgggcaagga gaagacagca acaataacag 360  
gaacagtgaa tagtttagaaa gtttgatgtt cgtagatatt cactactttt aaaaggattc 420  
ttttctgctt tcccaaac 438

200 250 300 350 400 450 500 550 600 650 700 750

<210> 4936  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E1-B5  
  
<400> 4936

cccacgcgtc cgcccacgca tccgcccacg cgtccgcaat acattgcgcg tgcaagaacg 60  
gcaaagacat cgcaaaaagt gaatgagatg ctcggctccg tgaatacgag ttctgcaggg 120  
gaagcttgtg gaaggatgaa gtccaaaggg gggggagttg gaagcgagtg cggaagcaag 180  
tgcgggtatg attggctctg gagatgggg ggtggacga cagttcagg cgggggaagg 240  
aacttcggtc gatgatgaag tggcacaact aaagtgcagt atcgagtctt ctctcgacc 300  
taaatcactt cctttcagc agatccaa tatagaagct gagttggacc gaatgaaaag 360  
agaacgagat tattcttgaa ctgttcaagg gggcaatga atagacagta tatatatata 420  
tatatat 427

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<210> 4937  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E1-B9  
  
<400> 4937

gtcaggagtt cccgggtcga cccaagcgta cgattgaaat ggcgccatgg aacctatttc 60  
ggattgatcc ttttcttc tctgtgtgtg tgtgtgtgtg tgtgtgtgga ttggcgccctt 120  
gtcttggatg aaagttcgc ggctccgtt cttgactctg gtgacgttat tctttacttg 180  
ccttgtttt gtgacaagca agacagacac acaagggtta tttcacaggg cttctgaatc 240  
aattccgttg catgattcca acgagttccgt cagtggctcg acagaagagt ctttcgagtt 300  
tcaggccgaa gttcaacgcc tcatgaaat catcatccat tcgctgtatt ctaacaaaga 360  
aatattcttt agagagttgg tttcaaacgc tgccgatgca ctggaaaaat tgcgtttt 418

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<210> 4938  
<211> 426  
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-052-Q1-E1-C2

<400> 4938

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gactgttag caaaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgt 120  
cggcctgcc aatagtagag aagaggtcga tgaaagtgaa agcgagtaaa agatgaggt 180  
tagagaatgg cggcctaac ggtgagggtc caaaggtac gaggtaggt aacgttgaa 240  
aggcgtccag tatgaaagga gaaacgagtg tagcactgtc tagtcgtcca actcagcgaa 300  
acagcaataa ctgtaaaat gcagtaact agcagtagga cgaaaagacc ccataattct 360  
tgactagata ggttangga ggagagagaa tcatgaagta gangaggtgg ggtaagagat 420  
gaaaga 426

<210> 4939

<211> 424

<212> DNA

<213> Cyanidium caldarium

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<223> Clone ID: LIB190-052-Q1-E1-C3

<400> 4939

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ttctatattc agcatgcgt a cggtttggt cactggagcc ggaggattcc taggaaagtt 120  
gctggttgag aaactctcca aggaggagtc tattgaaaca atactagcgc gtgatatgaa 180  
ggagccactc gaaagcttag ggaacttgcc taaaacaaag aggggagtgg gagatatcac 240  
cgaggagttt caagttaaga aagctattga aggatataa gtccacgggg tcgtccacct 300  
cgctgctatt atgtcagggtt tatctgaagc cgatataacc agtgcaatga aaataaatat 360  
gatcggtgct ataaatatga ttttatccgt agcgaacgag gcaacaaatc caagatttgc 420  
tttc 424

<210> 4940

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C5  
<400> 4940

gaattcccggttggacccac gcgtccgccc acgcgtccgc ccacgcgtcc gcccacgcgt 60  
ccgaatcagg tccgtcgcta ttccctgtgt tggttctacc ggagcagggc tatctgttgg 120  
tgttagctgcg gcagttgcaa aggcttggtc tgacctggat cagggaggga gtggcaggga 180  
tagagcgctc tttaggttgc cccaagtttt caaaagtggg gggggggagg gcaatcttcg 240  
cgggcgtcaa ggacaagggtt ctattgaagc ccgaggtaaa gctgagagaa ttgcaagaca 300  
aagagcagga ggtatccgta gtgtcgaaga tgacgtcgta ccagaggaac ccaactttct 360  
agcaaagggtt cccaaacggg agcgagatgg gagagcagct ttccgtccct cagagaagtc 420  
agaccgcgttc tccctcgag cca 443

<210> 4941  
<211> 441  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C7  
<400> 4941

gaattcgcgg gtcgacccac gcgtacgcat catgaaagct gctgtctttg cattctttgt 60  
cttagcacta tgccgcgttg ctattcaagc ttctcctcta gaggacactt tgggtgcctt 120  
tatgcggggt ggttatcaat cgcaaagcca agcacaaaaa cctagctgtt gcaagtttag 180  
ctgtcattat acccaaattt gtgaacaagt tatcgtggag gactggcag gtcgtccaag 240  
ctgcgagaag tttaccaaac acaacaagta cagcaaacac aacaagttc gtcagcatac 300  
ggacgcaatg aggtatccag agggggatat ggccaacagt ctgtagcccc agtccttgca 360  
ccttccgtgt cagtgttcca gtcaagtgt gtattgagtg ctgcgtttgc taccaacaag 420  
tttctcagca agtcctcaa c 441

<210> 4942  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D1

<400> 4942  
aattcacggc tcgacccacg cgtacggttg taattgtata caaacgttat cgtagtatgc 60  
tgggtctcaa aaagtctttg tatcctgctg cgacgactcg ttcaacttgc gcaaggcaaa 120  
ctatttctg ggcgcattcga gttagtttgtt atttgatggt tttcagaggg acgagaattg 180  
gaagtttgcat caaccgcattt tatcagttga cgcatcaggg agaggcaggc ttgggtctca 240  
tggtgctgca tgcagttact cagagttgc aaggtttctt atttggactt atttatattt 300  
accacgaaag agcacttaggg gaagttgttc tattcattcg tcgcaagtgg agtcgcagag 360  
gggattttcg cgaggattct tttatcgcat tagagaaaag aggacttgct cattttcac 420  
aatttgatga 430

<210> 4943  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E1-D2  
  
<400> 4943  
  
aattcccggttcgaccacgcgtacgctttgttagtggaaagggtttcgtgcaaaagt 60  
ggtagacata tccacctcaa agacaggaa gcatggccac gcaaaagcca acatagtagg 120  
tagtgatatac ttcaactggca agaaaatagga ggaaaatgtgt cccacctcgagaagagtct 180  
gcagccgggtgttaaccgca aagactatca gttggtagat attgaggacg agaggtgtgt 240  
acttcttagc ggaggaaaac aacgagacga gatcagacct gaaacttgat ttggagaatg 300  
atgaagtaca caagaagatc aagcaagact ttgacgaggg gaaggaactt ttgggtgaccg 360  
tactttcgcaatgaagata gagaagataa ttgcttccaa ggagcttaat tcgtaagcta 420  
gttgctgact 430

<210> 4944  
<211> 514  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E1-D3  
  
<400> 4944

ggggggtagg gggggggcg gggggggggg gggggggggga gggggggggg gcgggggggg 60  
gggggggggc gggggggggg gtggAACttc gggccggga ggggttacgg ctcgagccag 120  
gcgtccggcc acgcgtccgg acgtcttgc gtgttctgta gagaaatggt tattgttccc 180  
aagacgagac gtacatTTG tcctggaaag tgtagaaAGC gcactttaca caagggggcg 240  
gagtagggga aaggAAAAGA ctccctgggt gcggaaaggaa agagaagata cgaccgaaag 300  
caaaaaggTT atggcggtca gagggggggcg ggggttgcag aaaaggggag gacaaccaaa 360  
aaaatagtat tactgcgcga gtgtgtggac tgtcaCTACA agacgcagca tacactgaag 420  
cgTTgtAAAC acttcgagtt gggcgatcaa aagaaAGTC gaggtggagt tacttttAA 480  
ataaaaactat gttcgaaAGA tacaaacata agtG 514

<210> 4945  
<211> 226  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-052-Q1-E1-E1  
  
<400> 4945

acggTCAGGA attcacggct cgacCCAGGC gtacggtaac acatgcaagt aggtAAAGCG 60  
aacgggtgag taaaAGAGGTG tgaaAGAGTG gaagaACATG aaAGCacAGA agaATGTAAG 120  
aaatggTTGC agtaAAAACC atcAGGGAG tgAGAGGGGA atctgAGAGG AGGGGGGGGG 180  
ggggggnaAC tgagAAAAGG tccaaacaAG agaAGTgAGC agtgcG 226

<210> 4946  
<211> 353  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-052-Q1-E1-F1  
  
<400> 4946

taccggTTAG gaattccCGG ctcgaccCAC gcgtacgCGA gaaggAGAGG gcgtAAAGACG 60  
tgatacAGAG taggaAGAAA agagaAGAGA gctagAAAGG aggtAAAAGA agagtAAAAG 120  
gactagaAGA cgtacggAAAT tcacgAGGAG ggAGCgtGGG ggaaggAGGA atcccACGGG 180

ggcggggggaa gaaaaagctt cggtaaaagc gtgaacggat tttgtacaca ctgtggggaa 240  
gcggggggaa ntgtgtggcg gggtaagcan gacaagtaga agagagtagg agaagaggaa 300  
aggaagtcaa gacgtaagac gtgaaacaaa ttgcaaaagg gcggcgctc cag 353

<210> 4947  
<211> 424  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-F3  
<400> 4947

aattaccggg tcgacccagg cgtccgccc cgcgtccgag gaaccgtgt agtctatgca 60  
gtaaaaagaaa gaatgagtaa gaaaaaagg agtcattcca ccaggggagt aaaggcgcaa 120  
gaaagaaaacc caaagcaatt gacggaaagc gaaaaaagg gtggatgacg tgggttaatc 180  
cgataaaccg agaaccttac ctctccaaga aggtgttgca gggggtcgg aggaacgtgc 240  
tgtgaagtgg gagaacgtac gagaaagcca agtgacgaaa agaaggcaag tagagggcgg 300  
cccgagaaaag gagagggcgt aagacgtat acagagttagg aagaaaagag aagagagggt 360

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acgcttagaa gcagcaaaacc agagaggaaa gcgttaaagc atgaaagaaa agaaatccga 420  
aaaa 424

<210> 4948  
<211> 410  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-F7  
<400> 4948

attttgtgga ttgatagttt ttatactatc gacgcattgt ttgaatatct gccctatcaa 60  
cttttgacgg taggatcgag gcctacggtg gtgttgacgg ctaacggggaa attgggggtta 120  
caagaatgga atgaggtggg gaagataatct tccttagata cttggaagct tgtgcttgg 180  
acaagagcgg ggggtgcggg ggatgttaca gggaggtgca caagctgacg agcatcttgt 240  
cctttttata ctcggcgaa caaccgagag tggactatat cgttgctgag gatgaagcaa 300  
gttggaaaaa gttgtggaga ggaaaacgcg aggtcattgg atatactttg gaagcagctt 360

tacagaaaaac ttgttatttg gaaaaccagt tgagggagtg gacaaagaaa 410

<210> 4949

<211> 402

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-G1

<400> 4949

taccggtcta ggaattaccg gctcgaccca ggcgtccggg tttacgagag aaggaagtag 60

aaagaagaga gtgtaaggcg gcgtcataat agaaatccga aaggagtaga agaaaagaga 120

gagaagaaag agaagaagag aaaagccgta ctgaagagcg gcacaggtac tcgaggacaa 180

gggagaccca aattaaggtg agagaatgga cgataaggaa ctaggcaaaa ggatgaggga 240

gcggcggtag aacataggag agaagcagca ccgactgttt agcaaaagca cagcactctg 300

cagaaaagag aaaatgtaaa gtatagagtg tgccgcctgc caaatagtag agaagaaatc 360

catgaaagtg aaagcgagta aaagatgagg tatacagaat gg 402

<210> 4950

<211> 400

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-G11

<400> 4950

gaattcccg gctgacccac gcgtcaggct gcaacttgca actcgtctcc ttttcgttct 60

tctttcacccg caccgctatg caaaaaatgt gcttgcgtc ctacccttc gttgcctaga 120

gtggacgatg atacctttc gcgccaagtc gtgtccatga aaggcagaag ggacctcaaa 180

aaggaaaaaga aactacgcaa tttggagttt gctaggctgc atcggaagaa aaaagaacgc 240

aagagaaaagg tgaatcaaga gacgttgcgg gtgtatggacg ataataactt tgtaagggaa 300

gtgtttctg catcggaaga atcatcgagt agtagcagcc agttggagac tggatagcat 360

atggatgaat aagatagtga ggtttagcaa tgcaccaaaa 400

<210> 4951

<211> 284

<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E1-G5  
  
<400> 4951  
  
gacatagaat ggcaacagat aaagttagt aagaagatat actcttgtt aaaagaatca 60  
tggggcgccc gagtagttgg agctagacga ttcgggtggca ggaggcagtg gattcatctt 120  
gtagcaccaa gtggctgttt attgcaacgc ggggggtgcg gagttgcttg tagggaggg 180  
cagcgaattt aatgattcc tttgaggaaa gatataaagg aattgtttt ctctacttta 240  
aagaagaact ttgagtcgaa cgaagcgtca tgggagtgca gtgt 284

<210> 4952  
<211> 291  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E2-A11  
  
<400> 4952  
  
agcggacgacg tgggtggtag cagttgtaca ttcaacatca tcaaattgcca aaggagggaa 60  
agaaagattt ttcaaaagaaa gaagccacaa gtaaacctgc agcagcagat gctacaaaaga 120  
cgacagaaaaa gtctggtccg gaagccaagt tgaaggaaac tggtgcacag aaacaagaaa 180  
gagttgacta tgcattgtgcc tgttatgtta tgtgagttct gtttgatagt ttccagctat 240  
tctttggta gtgaataaaag agaaaatttg ttatatttaa aaaagatgaa t 291

<210> 4953  
<211> 369  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-052-Q1-E2-A5  
  
<400> 4953  
  
agccccacgacg tccggagatt ttgcgcgcca tttctctcaa tggaagcttg gcgaggtgg 60  
atgaagagaa aaattttagt tcttgcgagg caacattcct ccaacaaacg tagaataaca 120  
gacaacatgt gggacagagc acaggatata ctgcctgatg ataaaccaat attttatgga 180  
aaaaaaaaaaa aaataaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaataaaaa aaaaaagaaaa 240

aaaaaacaaa aaaaaaaaaa aataagaaag ggtaacaaca cagtaagagt tcacactaaa 300  
agtagtattc aagggggaat caaaggaaca tcatcgccgt aacataaatac aaaaacaaaa 360  
ggggggggg 369

<210> 4954  
<211> 278  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-A6  
<400> 4954

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc ggagatttg 60  
cgccgcattt ctctcaatgg aagcttggcg aggtggtatg aagagaaaaa tttgtagtct 120  
tgcgaggcaa cattcctcca acaaacgtag aataacagac aacatgtggg acagagcaca 180  
ggatatactg cctgatgata aaccaatatt ttatggaaaa aaaaacaaaa aaaaaaaaaaa 240  
aaaaaaagcaa aaaaataaaaa aataaaaaat ccagaaaa 278

<210> 4955

<211> 273  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-A9  
<400> 4955

tgtacattca acatcatcaa atgccaaagg gagaaagaa agattttca aagaaagaag 60  
ccacaagtaa acctgcagca gcagatgcta caaagacgac agaaaagtct ggtccggaag 120  
ccaagttgaa gggacttgtt gcaaagaaac aataaaaagt tgactatgca tgtgcagtcc 180  
tggatgttt tgtgagttct gtttgatagt ttccagctat tctttggta gtgaataaaag 240  
agaaaaatttt ttataaaaaa aaagattgag gaa 273

<210> 4956  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-B12

<400> 4956

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gccagggcag cacagatatac aagttggaag cccgaaacag ttattgtcg cgcgttctt 120  
gtttttacta caaacattag aatggaattt gggcaagaaa actctagagt tcctaccct 180  
cccccacacaac tgcaccta at tttgagcga cccggagctc tcaatactgg tggtagagca 240  
gcgatggctg cactggcttc tgtttgcgt ggaaaaaacc ttgtgataca acccaactgg 300  
atggacaacg aggggtgtaa caaatattgt atggataaac gggattatat gggatgctgt 360  
agtttggtaa caataacctga agagtggccg ttgttggagt ggaacgcgga aaatattccc 420  
cga 423

<210> 4957

<211> 390

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-B9

<400> 4957

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tgtgtgtgtg tgtgtgtgaa ttggcgccctt gtcttggatg aaagttcgc ggctccgtt 120  
cttgactctg gtgacgttat tcttacttg ctttgcgtt gtgacaagca agacagacac 180  
acaagggtta tttcacaggg cttctgaatc aattccgtt catgattcca acgagtcgt 240  
cagtggtcg acagaagagt ctgcgttgc ttcaacgaa gttcaacgcc tgatgaacat 300  
catcatccat tcgctgtatt ctaacaaaga aatattcgat agagagttgg tttcaaacgc 360  
tgccgatgca ctggaaaaat tgcgtttct 390

<210> 4958

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D2

<400> 4958

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acatatccac ctcaaagaça gggaaagcatg gccacgcäää agccaacata gtaggtattg 120  
atatcttcac tggcaagaaa tacgaagaaa tgtgtcccac ctcgcacaac attctgcagc 180  
cggtggtaa ccgcaaagac tatcagttgg tagatattga ggacgatggg tttgtagttc 240  
ttatggatga aaacaacgag acgagatcg acctgaaact tgatttggag aatgatgaag 300  
tacacaagaa gatcaagcaa gactttgacg acggaatga acttttgtg accgtacttt 360  
cgccaatgaa gatagagaag ataattgctt ccaaggagct taattcttaa gctagttgct 420  
gac 423

<210> 4959  
<211> 425  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D3

<400> 4959

gtctagaatt accgggtcga gccacgcgtc agcttttagt agtgttggaa ggttttccgt 60  
gcaaagtggt agacatatcc acctcaaaga cagggaaagca tggccacgca aaagccaaca 120

tagtacgtat tgatatcttc actggcaaga aatacgatga aatgtgtccc acctcccaca 180  
acattctgca gccgggtggtt aaccgcaaag actatcgat tt ggtacatatt gaggacgatg 240  
ggttttagt tcttatggat gaaaacaacc agacgagatc agacctgaaa cttgatttgg 300  
agaatgatga agtacacaag acgatcaagc aagactttga cgacggaaag gaactttgg 360  
tgaccgtact ttccagcaatg aacatagaga agataagtgc ttccaaggag cttaattcct 420  
aggct 425

<210> 4960  
<211> 453  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D6

<400> 4960

gtcaggaatt cccgggcccga cccacgcgtc aggtactcct cgaaagctat ataagtagcg 60  
tatgcagggaa agaagaaggt aaaggaagag aaggaagaag cagagaggga ctatgagcga 120

gaaggtggat agtcgagagg gaaaaagccc agaagccaag ataaggatc aaagtaaaga 180  
aagaaggaaa aggagaagaa gagagggtag gcttagaagc agcaaaccag agaggaaagc 240  
gttaaagcat gaaagaaaag aaatccgaaa aagaagagaa aaaggttaaga aagaggaccc 300  
aatcagggta agaggttagag gagcaagaag agaagagaga atgctgggtg gagtagcgaa 360  
acaagagaag ggaagtaaaa ggttaagaag acgaaacgtt tacgagagaa ggaagttagaa 420  
agaagagagt gtaaggcggc gtcataata 453

<210> 4961  
<211> 411  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D9

<400> 4961

aggtaccggt taggaattcc cggctcgacc cacgcgtacg gggaaaccaa agacatttgg 60  
gttgcaaatg ttggaggaaa accacaaagc gtttactca ttgaaaagtt tgtcagttt 120  
atggaaaacg aaaaggaaga acgggagaaa tggcgatgg aagcatggaa aacgcagtta 180  
attgtcgatg ctatattatca atcccgagaa accaageaag tagtttgtat gaaaatattag 240  
ttttcttgtt agtatttcta aagatttcca tgtttgatc gtatatgatt actgagatgt 300  
acacgacgag gaagtcagtg tttgttgaag aaagcttgg ctatacaact gggAACGATG 360  
acttgtgcaa taaaatgtcac acaaatgtga cgttttgcgta cgagcaagtgc 411

<210> 4962  
<211> 393  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E10

<400> 4962

ccggctcgac ccaagcgtcc ggcaagtttc cagataaaaa gaagaaaaatt ctatgctccg 60  
agaaggcttg gatcgtttc gtgcgagcag gagtttatgt ggtgcggaga caaggacgag 120  
tgtatgttat ccagagtctg aagaagattc atcgggagaa gtgcaataga ggagaaagcg 180  
gcggcggagg aaacgggagg atattaccag tccgaagagg caagatagtg actcacggg 240

gagtgtat tccagtcgcc tggaacgaga gcaatgtaac gaagaagaga attagttcaa 300  
tcacagactt gattctcttt acttgaagtc taatcgccag aataatgtga caacagatcc 360  
tgcatagttt gtatcccttg gtaaaagatat gac 393

<210> 4963  
<211> 393  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E12  
<400> 4963

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tatatctcaa ggctctcatt acttgaaag gatggcagat gttggtttg atattatttc 120  
tgtggattgg acgggtggata ttggcaaggc gagagaacgc atgggttctt cttctggat 180  
tcaaggcaat ttagatcccc ctatttgtt agggacacct caactcattt aagagcgcac 240  
gcgtgagatt attcataaaag ctggacacctg tggtcattt atgaatttgg gacacggcgt 300

ttggcaagaa taaatttact ctattagctg cgg 393

<210> 4964  
<211> 466  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E3  
<400> 4964

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tgacttggtt aagattgttg cttacgaggc aactggcagg gaaatgtgga aatataaacac 120  
tagttggtag tcttccatcc attcgatcggt tctctagtgt tcttccttca tgtaactatt 180  
ccttcgcaag taacattcaa aggagatcct tctcggctgt tccttcggag gaaaaggcaa 240  
ataaaacaaaa ggaagaagct aatgttacac aagataacttc caaaagtact tctccaactg 300  
ttttgcagga tacttatggc tttgaattaa gaacaggccg agcggacagg atgccttctt 360  
cgtttgagca agccacggga agtgaacgag cagaattgga agatcccgtt atctatcgta 420

atcctgaaaa gtttgtcaac agcagagtta tgattgcacc ctttgg 466

<210> 4965

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E6

<400> 4965

cccggtcgaa cccacacgtc aacacacatt catgttgcc tttcagtaca gcttatgttc 60

cagttctatt tatctaagga gagttgcattt gaagagtatc aattatcatg gttaccctcg 120

agttggcgta cctaataata gggtaatctt tccaggaatt atctcaagtg ctgccgatag 180

tagcagtgc aaggaaggtg tcaagaatat cggtgataat atcaaggaaa aaggttctga 240

aatatatcac tcagttgaag aaaatgtaaa gaaggagca gaaaaagtat cagaaaacgt 300

tgtatgaattc aaagacgctg tgcaggatag aatggaaaat gcagatactt ccagagcaga 360

agacgttagca cgagatgttg tagataacgt caaagatgct ggacaatccg gtaaagaagg 420

tgtctctgat g 431

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<210> 4966

<211> 409

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E9

<400> 4966

ccggctcgac ccaagcgtcc ggcaagtttc cagataaaaaa gaagaaaaatt ctatgctccg 60

agaagccttg gatcgtttc gtgcgacgag gagtttatgt ggtgcggaga caaggacgag 120

tgtatgttat ccagagtctg aagaagattc atcgtcaaaa gtgcaagaga ggagaaagcg 180

gcggcggagg aaaggggagg atattagcag tccgaagagg caagagatg agtcacggcg 240

gagtgaggag tccgaaagag aggaacgaga gcaatgtaac gaagaagaaa attatttcta 300

tcacaaactt gattctcttt atttgaagtc taatcgccag aataatgtga caacaaatcc 360

tgcagagttt gttcccttg tcaaagatat gacagagcct cttatgaag 409

<210> 4967  
<211> 348  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-F5

<400> 4967

taacggtcac gaattcccg gccgaccac gcgtcagagg ttatgcagtt gatcaagcta 60  
cttcaagtga ggaagataca gtcgtggta tacactttgg tccagacgtt catccgacat 120  
gtatgttgat gcgacacaca tcttactgctg cagctcaagt gataaccctt tttgctgtcc 180  
tctattcgtt cgatataccg gaagtatctg actttaactc tatgtattaa gtgtatgatt 240  
cttgtaccgt tatgttcgtc attcggaaatc cccatattat ggttagacatg gctaccggta 300  
ttaagaggtt gatcaactgg gctaccgctg actttcagga tcttattg 348

<210> 4968  
<211> 416  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-G1

<400> 4968

aggccggta ggaattaccg ggtcgagcca cgcgtccggg tttacgagag aaggaagtag 60  
aaagaagaga gtgttaaggcg gcgtcataat agaaatccga aaggagtaga agaaaagaga 120  
gagaagaaag aaaagaagag aaaagccgta ctgaagaccg acacaggtac tcgaggagaa 180  
aggagaccca aattaaggta agagaatgga cgataaggaa cttagcaaaa ggatatggta 240  
tctgcggtag aacatatgaa agaagcagca ccgactgttt agaaaaaaca cagcactctg 300  
cagaaaagag aaaatgtaaa gtatagagtg tgccgcctgc caaatagtag agaagaaatc 360  
gatgaaagtg aaagcgagta aaagatgagg tatagagaat ggccgtccta acagta 416

<210> 4969  
<211> 344  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-G10

<400> 4969

ggtaaaaaag cgtctttttt ttttctctgg agcaaatgtc gtttcgattt tgaatccaaa 60  
catttggtgg cctcttattt gtccttggtt ctccaaagat tttttttcg cccttagaaaa 120  
ctttaacgga tcatacggttggaa ggctccagtt gaagaaaaga tactttgtgg tagacagcga 180  
tattgcctca gattgttagaa agtattgcac tggtttatac agagataacc acgtcttagt 240  
gacactgaat ttataccgtc cgctgtctga gagtcgtttg ttcctagtat tgcattttc 300  
ttttgttttc ttgaaataaa aatttggcgc caatttgtac tggc 344

<210> 4970

<211> 325

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-G11

<400> 4970

agggtgaaac ttctgtcctcg tctcctctcc ggaccacatg tagttagtgc tgagactcca 60  
aatatgtggg gggttctaatttgcgttgc ctcgagtggaa agattatcccgtcgagac 120  
aagttgtgtc gatgtatgtgg agaaggcggaa gttgaagaga agataactttg tggtagatgg 180  
agtttagtgac gcacgtatgtg aaaagtatttgcactggtaa aacagtgtt cacaagtcgt 240  
agcgggtgtg agattgatac cgtccgtgtt cggagattctt ttcgttccta gtattgcaat 300  
ttactttgtt catcgagtaa gagac 325

<210> 4971

<211> 367

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-052-Q1-E2-G2

<400> 4971

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cagagactan cacatgcaag tagttaaagc gaacgggtga gttaagaatgtt gtgaaccatgtt 120  
ggaagaacat gaacgcagac acgtatgttag aaatggtagt agttaaagtcc atagaagaatgtt 180  
taaaagcggg aatctgagag gatgaaagcc acatcggtac tgataaaagg tccagcacca 240

cagaactgag cagtggggac aattgacgca tctacaggga aataatgtcc agtatacagg 300  
attggactac cagataatga agtagaaaga gggaaatgatg ggaactaatg gcacatgaca 360  
gtatcca 367

<210> 4972  
<211> 463  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-052-Q1-E2-G3

<400> 4972

ggcttagaat taccgggtcg agccacgcgt ccacggctcg tgagatgcta ctccacaagg 60  
taaagaaccc ttcgagatgt gactttgtcc atgtcgatgt tatggaaaaaa tctgtacttt 120  
ctagcgatt aaaggatgct gaagtggttt tcttctgtgc ttcagcttct gcaggggtgga 180  
gagtcctcgg tacttctaag aacaccccgaa aacaggtgga ctacttggc gccattcatg 240  
tcgcagaagc ggcagccaa gctaaggta aacgtctcat cttggtaagc tcagcaatgg 300  
tgactaaccg aagttcattc ctttatttgt tcttgaactc tgcatttggc cgaattatgc 360  
atggaaaag-gcaaggagaa-atggagtca-tcaaagttca-tgagaaaaat-ccagaaatgg-420

cttatactat tggtcgccca ggacacctga tanatgagcc tgc 463

<210> 4973  
<211> 338  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-G5

<400> 4973

gacatagaat ggcaacagat caagtcagct aagaagatata actcttatgt aaaagaatca 60  
caaaccaaag aatatttggc gctagacgat tcgttgcagc agccagtggc ttcatcgatgt 120  
agcaccaagt ggctgtttat tgcaacccca ctgttggaaat ttgcttgcac tgcattggcag 180  
cgaagtgata tgattcctt gaagaaagat agagaggaat tgcatttctc tactttatag 240  
aagaactttg agtcgaacga agcgtcatgg gagtgcaatg tacttgacat cgcatgt 300  
gtttttatcc agtattatga agagtgcgtg gaacagta 338

<210> 4974  
<211> 387  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-H10

<400> 4974

gacccacgcg tacgtgattc ttcttcttct gtttcttc tgatcgatgc 60  
tttgattcgt catcagatga ggatagctcg gatgatgagt actatagttt tcatgaagat 120  
atttctgatt atgattcggaa agaagaagtt gatgacttgtt tttcagaaga agacacggat 180  
tcagaagaag aaggttccag tgactcggat gacgtgtaaa agagtgtaca gtgcagcaat 240  
ggaacaaaag ttgttcgca acagtgtata gacagaaata gatagatgta gaaaggaaaa 300  
cacgcaacta ttattatcta ttctttcac caaggaacaa ccgtttgctc gtccttgcgg 360  
gcgtatatat gtccatagat tatctaa 387

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<210> 4975  
<211> 463  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-052-Q1-E2-H3

<400> 4975

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tttgtacttg attttgtaa aacatgtctg acgatattgt tgccttgcgg attgacaatg 120  
gctctggtat ggtgaaagca ggagttgcag gggacgatgc tcctcggtcc gtctccctt 180  
ccatcgtagg tcgaccaaga caccaagcta ttatgggtgg tatggacaa aaggaaagtt 240  
atgtgggtga tgaggctcg tctcgaaggg gtatactctc tttaaaatac ccaatagaac 300  
acggtattgt cactaattgg gatgatatgg aaaagatatg gcaccatact ttctacaatg 360  
aacttcgaat tgcacctgaa gagcatccag tcttgcgtac cgaagctcct ctcaatccan 420  
aggcaaacag ggagaanatg actcagatca tgttttgaga ctt 463

<210> 4976

<211> 300  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-H5

<400> 4976

aatccgggcc gacccacgca tcagaagaaa ctaaaggcgc gcaatgtcg ttttgtggga 60  
aaaaaaaaata aagacacaaa aggaagagat taaaaaaaaa aatcacacaa aacaaggatt 120  
taaattgctg tcgtggcaag cgccattgtc tcattcatgt ctgtgcaaca gatgtacaag 180  
ttgttgtata ctgtctccag gactaaattt gttaaccggc cttcaagtca ttttataaacf 240  
gtgatatctt ggaacttccc tgccattact ctgcttcttc accttgaccc ctttgtccaa 300

<210> 4977  
<211> 220  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-H7

<400> 4977

agagtgactg tcttcattt ccatttcca tacaatactc taattgtccg taaggttca 60  
atattattac aagtaaacat gagttttca aagtaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaag gaagaaaaaa aaaaaggggac aaaaaaaaaa taaagataaa agaaaagtaa 180  
aaagttcatg aaaagagtaa aaaaaataaa aaataacggg 220

<210> 4978  
<211> 419  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-052-Q1-E2-H8

<400> 4978

gacccacgca tcagccccacg cgtccggcca cgcgtccggc agaatggacg acaggcttcc 60  
acgtttcaaa agaacttcc acagagtct ttataagaaa agaaaggaag acacagtaaa 120  
tgaggcgaga aagcatagga agtgaacgca tangaaccgt gtatgtatg cagtaaaaga 180  
aagaatgagt aagaaaaaaag ggagtcattc caccaggggc gtaaaggcgc aagaaagaaa 240

cccaaagcaa ttgacggaa tcggaaaaag gtaagaaaga ggaccgaatc agggtaagag 300  
gtagaggagc aagaagagaa gagagaatgc tgggtggagt agcgaaacaa gagaagggaa 360  
gtaaaaggta agaaagacga aaggtttacg agagaaggaa gtagaaagaa gagagtgtt 419

<210> 4979  
<211> 246  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-H9  
<400> 4979

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cgtggagttg agttctggta cgggtgttggaa tcaagtttct ttggaagaca gagaatatta 120  
tgattatgtat gaaaaggaaaa aggaacaagt cgctattacc ggtttagaat ggcaatggaa 180  
gagagtataa atttccaaac aacaacaata atagaaaata tagtcataga aattgttttc 240  
cacaat 246

<210> 4980

<211> 395  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-A12  
<400> 4980

gcgtcagagg aaagagaatc atgaggtaga ggagtacggg tgatagtggc agtgcggagt 60  
ataataatat ggagtatatg aggatatggaa gaggagagta taatgagatg gataaggtac 120  
agtacgataa gtcagatggg atatatgtta atggaaatga ctatggtaa taaagaggag 180  
agtgtacaat attacataaac tgtatacagt gtactgatga tgggtgatatt aggtgggtgg 240  
agtgagaaga gggagaggag gatgaatgag ttactaggag aaggaaagag gaatagtgtg 300  
cagactataa tgttaatgat cacgatgtat tcgatgtgg gaatgccagt tatggcacga 360  
ttttggagta agtatacggt aatgatggag agtgt 395

<210> 4981  
<211> 394

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-A2

<400> 4981

tgacggtcag gaattaacgg gtcgacgcac gcgtccgcaa tatcgacaat ggatggaaca 60  
acggcatcaa cagtggatgc aaaatgaaga agaagaatcg acagaaaatc atcatggcaa 120  
gccttggaaa cgtcgaaaga cgccatatacg tagtaatagt agtagtagta gcaatagtag 180  
cactagtcaa aaaggtccta gtacgagtgt tttggtagat gttgttgcattccatggcca 240  
agcaaagaag agaggggatc gttggcttga tgaagaggag acttggaggagaataactca 300  
taataataat gaggatgatg aggatgatgg gaaagagtcg caacaacaac aagaagaaaa 360  
gcgtttacgc aagatggctt cttatttggc attg 394

<210> 4982

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-A6

<400> 4982

aggtaacggt caggaattcc cggccgacc cacgcgtcag gaggaagtat tcaacaaggc 60  
agcggaaagaa gtaaaaaaac tgtcttcggc atccaacgaa gacaaactgg agctatatgg 120  
ttactttaaa caagccaagg agggtgattt ctccaccgaa aaaccaaaaag gtctttttaa 180  
tcaaaaagaa aaagcaaagt gggacgcctg gaattccaaa aaaggtattt ccaaagaaga 240  
agcacagaaa aagtatatcg aaaaggtcga tcaactatgc ggcacgcagt ttcttcaaag 300  
cgtttcctag tcaccttagg tccttgctct tttttggtt tgtcggcct aattccaaa 360  
aaatatgagt aaagtacccg ttttttccg caaaaaaaaaag aaaagaaaaac g 411

<210> 4983

<211> 355

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-A8

<400> 4983

aattcccggt ccgacccacg cgtcagccca cgcgtccggc ttgattggc tggaaagca 60  
gttgtaaact tttcatgat gtgggtggtgg tttgctggtg ctttgagtgt gatgatatcg 120  
aaggcttagtg cccagttca gcggagatat ggtttggtt tggaaacttag tactattgca 180  
gcctttaact gggtgaacct tggtttcat tttaccgaac tctatctgtc tattttgacg 240  
acgtatgtgg cgatgcgcat gctaattccat attgcataag atcattacgc tgactactaa 300  
ggtccttacg ctcattctgc attgtcgctc ctgagtcaca aaaactctgt ttgtg 355

<210> 4984  
<211> 133  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-B1

<400> 4984

agtgcggtca ggaattacgg gtcgagcccg cgtccgccc aacgtccgga ctgtggacgg 60  
ctccacatta ctactgttcc tatgattgtt attattattt cgcaattgac aatactagac 120  
actttccata gaa 133

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<210> 4985  
<211> 347  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-B2

<400> 4985

ggtagaaat taccggccg acgcacgcgt cagacgcaat agatcagaca gtaacacatg 60  
caagtaagta aagcgaacgg gtgagtagag atgtgtaaa gagtgaggga atatgttag 120  
cacaaaagaa tgtaagaaat ggtagagta aaaacgcata aaggaagtaa aagcaggaat 180  
ctgataggag gaaagccaca ttggcactga caaaatgtcc aaacatgaaa agtcatgcaa 240  
tggggaaaat tggcaatgt acaggatat atgactcagt aatgaagagt ggagttcaca 300  
gactatgaag tcgaaggaag gaatgaacgg aagttatggc aaaaaca 347

<210> 4986  
<211> 418

<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-053-Q1-E1-B3  
<400> 4986

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aacggaagtg agaagcataat gtgcggcatg gtcggcattt tggatatttgc ttagtgcttt 120  
tgtcaataca tatacattta gcaaacaagt cgatgcagtt ggagtaaagg gcctgtatgg 180  
actatataca gggtttactg tgttcttcat gatagtcttgc ttcttcatct ttccagagac 240  
aaaaggcaag acatttggaaag aagtgaaaga aattatggaa ggaggtttac cattcattat 300  
tcataagaat atcgtagatg catggaaataa cgtcaagtat ttgttcttgc ttggtaaaca 360  
ccaatcccag atcaaatagaa acctttggaa gagtctacat attcgttaact cagtctac 418

<210> 4987  
<211> 274  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-053-Q1-E1-B4

<400> 4987  
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aagtacgggc taccgaggat agaaccgtac tcggaatagc cggtccaaac aacgaaacat 120  
acaataaaaa tagtttattt gcgtgtttt gagttggtc aaaaagaaaa aaaaaaaaaaa 180  
aaaaaaaaaa taaaaaaaga aacacaaaaa aaaaaaaaaa caacaaaaaa aaaaaaaaaa 240  
aaaagaaaaa aaacaaaagg ggccggctccc acaa 274

<210> 4988  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-053-Q1-E1-C10  
  
<400> 4988

accccacgcgt ccaccccacgc gtccgccccac gcgtccgccc acgcgtccgg atgctcattc 60  
caaqagatcg tccagtagca accagacttc qaqccaaqaq aqcaccqaaqq aaqatqqtqq 120

agaagatgg attcatagca atactgtgga gaccgacgtg ttacctccag gtggtttagg 180  
caatgcta atccatgagt tggctgaaaa tgctgcaaag agtctcgta taagtatgac 240  
ggaaagcgcc aaacagtccc aagatggagg cggtgaagcg gatgaaaact tggaaatggtg 300  
tgcggacaca tcaaaaagaag caattaaggc aaggcaagca gaagctgcag cagctgcaaa 360  
ggtttggaa ggtttgacgg attctaagaa gaagaagaac gtcaatgttc ctgtggag 418

<210> 4989

<211> 317

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-C9

<400> 4989

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aaaaacgtcc agtttctttt tgttcttatt atggccaag cggtactgt ttggatcata 120  
tttggctgg agtgttgcctt gtttgaata ttcacgacta tattttctt ccaaagattg 180  
gaagctttct atccttgggt ttacgcgaat ttaatgactt ttcacgcaaa gtagatactc 240

gttatatcgt tactttgtga ataaaaaaca acgagttgtt ttattcacca aaaacaacgg 300

cgaacatccg aaaactc

317

<210> 4990

<211> 399

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-D10

<400> 4990

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ttttgtttgg tctttataac gactataact ttggtaatg caaaacgaaa ctattataaa 120  
gtgctggcgttggaa cgcttccgag agtatgtggt ttagcgttca ttctccaagt 180  
ttctttact ttgttagga gaaattaagc gcgcgtacca tcaactagca aggaagtatc 240  
acccggacaa gaacggcggt gacaaaaagg cggaactgaa atttcgagaa atagctgaag 300  
gtaagtgctg gtaacttggc ggcttcttgc ttctttatc gcatttgggg agcatatgaa 360

gtcctatcg acccacagaa gagagacacg tacgacttg 399

<210> 4991

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-D2

<400> 4991

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atggctgttt ggcttgggaa agctgcctgt acgatcgat ttaccactta gggaaatata 120  
ttctcattgt tgttcagaga cggaaagaat atttcggagc ttcaagatta gtttgggta 180  
tacataaaaa gttccgagag accattggca acgaaggaaa attgagaaga gattggaatg 240  
ggcgcgaaac gataagattc ttgccaacta gagtcgatgc aaccattagg aaagatttg 300  
ctagaataat accagcgaac aaaggagtaa ataatgtttg atgagagaaa agactcaaga 360  
agtctatcat cgcgatatca tagagctgat aagtcaatca ctgtgtctta aagaaaaacc 420  
aaatctcttg tatttatgga aatttct 447

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<210> 4992

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-E1

<400> 4992

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caatgatcca tcgttgtttt gcttggaaaga gagtagagga agtcattcaa gcgttaaaga 120  
aagagaccga agcaactgca gattctacaa gcaagttgc acaacaagcc ttgaaacaaa 180  
tattgaaagg ttctccaacg agtctcaaag taactttgga gtccatcgaa caagcttcac 240  
agatgacatt gaaacaaacc ttacaaaaag atttccgtat gtcgatgcac tttatgaaag 300  
gtcacgactt ttatgaaggc attcgagcaa ctttggtaga taaggataga aaccctaaat 360  
ggcaaccgga caagttggaa caagttacta gagcaccggt agaagaatac tttaaaccct 420  
tgaaagatat acccgac 437

<210> 4993  
<211> 295  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-F10

<400> 4993

acgcgtccac ccacgcgtcc gggttgagat tggtttctt ttcgtccacg cttcgttccg 60  
ttacttttg tcgtgacaag ttataatata aaatggccaa agtaaaccct gtgtcgtcgg 120  
ctcctaaact aagtgtact agagagatag ctatcggtat tgggcttggt atagcgtgtg 180  
ctatggtatt tcgccagttgg caactccgat acaccgaaat gataataaaa taataacccc 240  
aattggatga accagaacaa aattccccct cgtccttaaa accgcctgt gtttg 295

<210> 4994  
<211> 292  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-F2

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<400> 4994

gcgtcagccc acgcgtccgg atttctgttt gacgcgttc gtgtcccccac tttccctttt 60  
ttgttaatct tcgaaaggct ggataggaca agcatcatta ttcaaggtaa ctcatgtata 120  
cgtggaaata atgcttctgt cgaagttct tataccggaa attttaaaga aagacagtcg 180  
tttttgcag cgtccttgc tagaagaagt ggctggctcc ctttggggct aactcaacaa 240  
agcgactttg gcctgccagg aattattgaa tatttccacg agcttattct gt 292

<210> 4995  
<211> 339  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-F5

<400> 4995

aggcgttctt tgctttatgg aaagggtttt ggccgttctt cttccgtatc ggtccacata 60  
cagtcttgac ctttatattt ttggagcagt ttaaggcctg gtatttgcga aagctcaact 120

aggccttgt tattggcaag ctgaataaca ctaatacttg tcgtatccat ggagttgtaa 180  
aaggccaac ggtcgttta cgctcggtca gaatggattc tcacaagtat tgcgatttt 240  
aattgttgtt tcgagaaaaa attgtcagaa atttcagaga aacggattgg aataaatggc 300  
aattttgct atgaaaaagc tcaggtccta tctaacact 339

<210> 4996  
<211> 416  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-053-Q1-E1-F9

<400> 4996

acgcgtcaga atggacgctc aaggtagtgt tgtaccttca ctgacggtgg atgctgcagt 60  
tgtacgaggt ttgaagccag cactagaaat tttattggtt actagaaaaga aagaaccgtt 120  
ccagggtcgc ttggcttttc ctggaggttt tggtaatat ggtgaggatc ctgagcangc 180  
agttttgaga gaacttgaag aggagtggtgg aatacgaggg acgagtcctt cgctcggtgc 240  
cgtccgtggg aagccaaata gagatcctag gaaacacgtg gtaacaatat gttactatgt 300

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agaacccgca cagaaagact ctcaggtgaa agctggtgac gacgctgcgt cctgtggttg 360  
gtattctgtg gaaagtctta tgaagagtcc agaactttt gcttttgac actacg 416

<210> 4997  
<211> 455  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G4

<400> 4997

gtgcggtcag gaattcacgg gtcgacgcac gcgtcagccc atacgtccga tcttagtttc 60  
agtgtacgca cgcatggttcg tctgagggtt tgcagttgtc acgagttgtc tgcaatgtgt 120  
cgcgacatgg gtttcttgag acagtgcgag gaaaccacac tgacgacgtc ggcccaaagc 180  
tcggtttacg gcgtgtacaa cgaggacaat catttggtcc ttcaagcatc gctcagattt 240  
taagcacgtt tgaagtcgca ctgtagctct cagtaatgca tggggttacc acggtacaat 300

tagcgatctc agaggcagtt agcaagctt tcatcactgt tatgaaaact gtagttatt 360  
accagaacgt gaagtgcgaag tcaacgtcca ggtacacaat ccaaaactcc aatcgatact 420  
tgtatacaga atgatccacg gagcattcca catag 455

<210> 4998  
<211> 292  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G7  
<400> 4998

cggtatagaa ttcccggct gactcacgac tcagcccacg cgtccgatgg aggtaaactg 60  
gtgttgggtt ggggtgtgaa ggcttgagt ctaaggacctt acgagagc gtttctggg 120  
ttcctggcgt tacgggtaag acttatacgcatcattcgt tacaggatgg acacagtacg 180  
acttatgaca agacttgtgg tttccatgg aataaaagta taatttttg taaaagtacg 240  
acgtacgagg cccccctagt cggaaccgg acgccggcgt gcgcgcgcgt gt 292

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<210> 4999  
<211> 352  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G8  
<400> 4999

agcccacgacg tccggactag ttctgtattt attggctcta cgtctgcca tagttttgg 60  
accaacttga atattccatt gtatcaagat agtgcacatg gacccaaagc tgcgttgg 120  
tatattgtct cgggatttc gatatgtgg tctatcgatc tcatgtttt gttttcaga 180  
cgcaacaagg ccgtggaat atattgtcg aggacaacg atgatgcac tctactagcag 240  
tgatagtaat agtaatagta gccaggaaaa aacagagaga gaaagagggg caagcaacga 300  
caaaaacaat ttatacaaat aaaccaagat gtttagcgaa aaaaacaaac ag 352

<210> 5000  
<211> 394  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G9

<400> 5000

gccgaccac gcgtcaggaa aagagaagag agctagaaag gaggtgagaa agcataggaa 60  
gtgaaacgga ttaggaaccc gtgtagtcta tgcagtaaaa gaaagaatga gtaagaaaaa 120  
agggagtcat tccaccaggg gagtaaaggc gcaagaaaga aacccaaagc aattgacggg 180  
aatcgaaaaa aggggtggat cacgtaaatt aatccgatat aaaccgagaa ctttacctct 240  
ccaagaaggt gttgcacggc tgtcgaaaga acgtgctgtg aagtgagaga acgtacgaga 300  
aagccaagtg aggaaaagaa ggcaagtata gggcgccccg agaaaggaga gggcgtaaga 360  
cgtgatacag agtaggaaga aaagagaaga gagc 394

<210> 5001

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H1

<400> 5001

ggtcaggaat taccgggtcg agccacgcgt ccgggagaat ggaagaggag gaggacgctg 60  
cgtattattc acaaatacgat aaggaagtag tcgagtctat ggaagttcc gagagtgttt 120  
ctgggttcc tgcaagagacg gagaaggctt atagaatacc aaactttaca ccattgactc 180  
aagacgactt tgacgaagac ttgtggttt ccatggaata aaagtatagt ttttgt 237

<210> 5002

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H10

<400> 5002

ggccgcacgc acgcgtccac ccacacgtcc gggAACCTTC gtattatgtc atcaatgttc 60  
ggacgcaaag cagagtacaa gagagtttt aaagttatgg ggttcaagtc catattctcg 120  
cacgaaacac cgtattctct ggaaccagct tcagtttagc aagcgagcag agctccacag 180  
aacgcacact tatgcacgta gactattct aactatggaa aaagggaaag aacagaaatt 240

tgcacatcacca gaagaagaaa gactggcaaa gaaacgtcaa gaagtggaaa gactgcgagc 300  
cgctgaaaag tttatacgta aagatgaagg aaaattcggt tgcctgtgt gtgattatgt 360  
ctacgaacca agcaaaggag acagtttggc tggtatacaa cct 403

<210> 5003  
<211> 317  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H11  
<400> 5003

acccacgcgt ccggaaagac agcacgcaaa ccctggaaag cagtcaacga agaacgagac 60  
acgaacaaac tgagtatcac gaataaaaga tggagtagat caggaccaa agtcacgga 120  
agtcacagta agcgcaggag tcattgtaat gaaagcagga cagtattgc tcaacagagt 180  
gtacagctcg tcactttgc aaaatctccc aacgagtcaa cgaggaagcc acactattgc 240  
atcaccagta gccacgtgag acgccaagcc acttgatcat atgctctcca agcgaactac 300  
cgctgagtca tataacct 317

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<210> 5004  
<211> 391  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-053-Q1-E1-H2  
<400> 5004

gcgtcagccc acacgtccgg gaaaacaacg tggaaactat cgacagaacc aacttaagt 60  
tacctccaat agtgtctgaa cgtatggaa agcgtatgtt gtatgctgcc agtgttcctc 120  
tcacctttt ttttttcctt tttgggtccc tattcgtggc aaagtttcag tttgatatta 180  
cttttatgcc atcggtagta gcgtatagtt cgttggct tatttttgt accatggcag 240  
caactgagttt tggatatttt tccgcctcggt gggacgtgga agacgaagga agtttctggg 300  
gttggaaaga gtttcgcata aatattgggc gtacggtaa agggttcaag gcangtgcaa 360  
aaaaataatc tgagaatata taaaccatat a 391

<210> 5005  
<211> 441  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H4

<400> 5005

gggtcgacgc acgcgtcaga aattgttgat gagaccgatg tttatatgga catgaagaca 60  
aagaaacctg ttctttcg gggtccagat ggtgcctac atcgcagagc ttttatcgga 120  
ccgaaaaagc cacatactca aataacaatt agagagattg acattggaac tttaaagcat 180  
agttcgagcg acccaaattct atccgttagg agaaaaaagg cggtagaaaa cttcaataag 240  
caagtgtatgc gcggcgatat cgatgaatgg agtttgagga acctcgctt cactaccgat 300  
gatattcaag gctatgagtc agattctgac gaggcatccg ataattcaag taatgtcaat 360  
cagcaactctc atttttatgc aactgcttcc aacagtagga acaggacagg ggaagagcaa 420  
ggtaataata ccgaggcatt c 441

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<210> 5006  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-053-Q1-E1-H9

<400> 5006

ggtcaggaat taccggccg acccacgcgt caggtaaatc gagtctcgtc ccaggcagag 60  
acaggaatat catatattat aaatagatat atatattcat attcaaagat agatagatct 120  
tgttcgtgt angaatgtct gttttctct ctctccgctt ttccgtcgca aggcatccta 180  
gagtttgcc accactgtt aaaaagtatt tttgtgtgga aagcacttca ggccttccaa 240  
aaagtgaaac tcttcaacc aatgttgctt ctatgtacaa tagactcaag gtatctgt 300  
tctctacgag ttgttcttac tggactctt tcagagtagc acggaggaag attctgttcc 360  
tttgtatcgc aatcgccccg gtatccaacc acttcagact ccagttggct cgtt 414

<210> 5007  
<211> 385  
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-053-Q1-E2-A1

<400> 5007

taccggtcag gaattcncgg gccgacccac gcgtcagccc acgcgtccgc ccacgcgtcc . 60  
gcccacgcgt ccggcatgat gaagagcgct atgaagttct ttgtatTTAG cattatTTG 120  
gcaaATGTTG ttcttactat tcaaggcagca acggTTTGG agactTTGGA gtcactgaaa 180  
tatacagagt atcttgacat ggtAAaggct gcaggcctgg actcgaagtt caacgactct 240  
gctgttacat ggactgttt tgCAGCAAAC aatactggag tcaatgccac ctTggcacca 300  
aagcacttgg ttatttctaa tatCACATCT aatgcgacgg agagcaaaga cattgtggaa 360  
tatactttgt acaaccatac tcctt 385

<210> 5008

<211> 450

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-A12

<400> 5008

gtctagaatt accgggtcga cgcacgcgtc cgaggagaga gaatcatgaa gtagaggagt 60  
atgggtgata gtggtagtgg ggagtataat aataaggagt atatgaggat atggagagga 120  
gagtataagg agatggatac ggtacagtac gataagtcaG atggatata tgtaatggg 180  
aatgagtatg ggtAATAAAG aggagagtgt agaatattac ataagtgtat acagtgtat 240  
gatgatggtg atattacgt ggtggagtga gaagagggag aggaggatga acgagttgt 300  
aggagaAGGA aagagGAATA gtgtAAAGAG tataatgtta atgataacga tgtattcgat 360  
gatgggaatg ccagtaatgg caggatTTG gagtaagtat aggtaatga tggagagtgt 420  
aaggagtggA gagtattcga tggggatagt 450.

<210> 5009

<211> 406

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-A4

<400> 5009  
acgcgtccac ccacgcgtcc ggaaacaaggc attggaagaa aagaatctat gcaatgaata 60  
ttataagaag aaacaattcc aacaagctat cgaacattat aacaaagcta ttgaatttgg 120  
tccttggaat ttatcttatac ttacaaacag agctgctgcc tatttagaaa tggcgagtt 180  
ggatagttgt attgaagact gtcagaaaggc agtggattgg aacaaggaat ataactttag 240  
aacagattat aaaataattt ccagagctta tgcaagaatg ggcaatgctt atgcaaagaa 300  
acaagattat gacaaagcaa tcgaatgtta tgagaaatcg ctgttggaaat atcacgacga 360  
caaagtatat tcgaaatgtt acgaaatgaa gaaactcaag aagaaa 406

<210> 5010  
<211> 383  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-053-Q1-E2-B3  
  
<400> 5010  
acgcgtcagc aacataggca tttcatctat tcaatgggtt gaagctggtg aactatatga 60  
aacggaaagt agaagcatat gtgcggcatg gtgcggcattt tggatatttgcgtgtcgttt 120  
tgtcaataca tatacattta tcaaacaagt cgatgcagtt ggagtaaagg gcctgtatgg 180  
actatataca gggtttactg tttttttcat gatagtcttg ttcttcatct ttccagagac 240  
aaaaggcaag acatttggaaag aagtggaaaga aattatggaa tgaggtttac cattcattat 300  
tcataagaat atcgttagatg catggaataa cgtcaagtat ttgttctttt ttggtaaaca 360  
ccaatccaga tccatagaac ctt 383

<210> 5011  
<211> 403  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-053-Q1-E2-C1  
  
<400> 5011  
ggtcaggaat taccggcccg acccacgcgt cagccccacgc gtccgacaca caaaaagaag 60  
aatgtcgacg acgcttatttggaaatgtt gttcaatgtt cttgagttact ttccagtgaa 120

cgtattcgg tcttctttta tgtgtcatta cttggtaata agatatgcct gttggtgact 180  
agttaccgag ttgttactag gttgttatt acttatcaag gttggctta tgatatcggt 240  
ggttgtaact acgatcgagt tgttatatat aaagaaaactt ggcatggat taaaaaaaaaa 300  
aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa tatttaaaaa aaaaaaaaaaa aaaaaacaat 360  
caaaaatcat aaaaaaaaaaa aaaaaaaggg gggccgcct aaa 403

<210> 5012

<211> 454

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-C2

<400> 5012

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agtagcgaaa caagagaagg gaagtaaaag gtaagaaaga ggaaagggtt acgagagaag 120  
gaagtagaaa gaagagagtg taaggcggcg tcataataga aatccgaaag gagtagaaga 180  
aaagagagag aagaaagaaa agaagagaaa agccgtactg aagaccgaca caggtactcg 240  
aggagaaaagg agacccaaat taaggtgaga gaatggacga taaggaacta ggcaaaagga 300  
tatggtatct gcggtagaac atatgaaaga agcagcaccc actgttttagc aaaaacacag 360  
cactctgcag aaaagagaaa atgtaaagta tagagtgtgc ggcctgccaa atagtagaga 420  
agaaaatcgat gaaagtgaaa gcgagtaaaa gatg 454

<210> 5013

<211> 290

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-C9

<400> 5013

gacgcccccg tccgtaccga aactgtgaat gatttatgtc cgtatccgct tattgaaaac 60  
aaggaaaaag gtccagttc tttttttct atttatggtc caagcggcga ctgtttggat 120  
catatttggt ctggagtgtt gccagtttg aatattcacg actatattt ctttccaaag 180  
attggaagct ttctatccctt gggttacgc gaatttaatg acttttcacg caaagtagat 240

actcgttata tcgttacttt gtgaataaaa aacaacgagt tgtttattc 290

<210> 5014

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D12

<400> 5014

gggtcgacgc acgcgtcagg tgagagaaat tcacttcctt agtaactatg cgatgttaat 60

tttgagtttc acatttatag gaaatttctc taaaattgac gattttctt tatttttta 120

aagttgttta aaaataattt caacaggtat ccaaggttct ttatagttt cttgtgattt 180

gccgtacttg ggtgggattt gtttatgcga gggcgctctg ttttattcga tgcccggtcc 240

caagttcctc gtcagctcc ttattgtggg cgtacatac ttatcgta cgtttcttga 300

agcttacagg caggctctgt acaacgctca agtaagaggg actgcagcgg gagcagcagg 360

tcaagttttt cgtgaagaag gaaaaatgtc cgtcgaagaa gcttctaata ttttaggagt 420

atcaaaaaggt gattcttggg a 441

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<210> 5015

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-053-Q1-E2-D2

<400> 5015

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gcccacgcgt ccgagatggc ttttgctt gggaaagctg cctgtacat cgtatttacc 120

acttagggaa tataatgtc attgttgttcc agagacggaa agaatatttc ggagcttcaa 180

gattagtttgggatacat aaaaagttcc gagagaccat tggcaacgaa ggaaaatttga 240

gaagagatttgggaa gaaacgataa gattcttgc aactagatgc gatgcaacca 300

ttaggaaaga ttgtgctaga ataataccat cgaacaaagg agtaaataat gttttagttag 360

agaaaagact caagaagtct atcatcgca tatcatagag ctgataagtc aatcactgt 420

tcnttaagaa aaaacaaaatc tcttgt

446

<210> 5016  
<211> 432  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D8

<400> 5016

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gtatctgcgg tagaacatat gaaagaagca gcaccgactg ttttagcaaaaa acacagcact 120  
ctgcagaaaa gagaaaaatgt aaagtataga gtgtgcggcc tgccaaatag tagagaagaa 180  
atcgatgaaa gtgaaagcga gtaaaagatg aggtatagag aatggcggtc ctaactgtaa 240  
ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga aaggagaaac 300  
gagtgttagca ctgtctagtc gtccaaactca gcgaaacagc aataactgtg aaaatgcagt 360  
aaactagcag taggacggaa agacccata attcttgact agataggtt agggacgaga 420  
gagaatcatg ag 432

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<210> 5017  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D9

<400> 5017

cgtcaggtgg aaatatccca tcagcttcc aaccttctcc acgcggata cgagtgcgaa 60  
tataccgagg tggagtggct accttgggtt tggatggtag acactgtcga aaacgcaata 120  
gtatgggaag acatactggt gcttcaaggc gccaaactgc tggatattta tgctgaagga 180  
ttacaactgt tcaacaagtt tcgtcgac ctgatgaacg tgtccttgc gggagacagc 240  
aaactatggg attcaactatc tcgtttcttgc tggatattcc aaccgagtc ttccacttgc 300  
tggaaacttgc gaaagttct cgttcaacac catcacgctt cctatcttgc ggagctaaaa 360  
gtgagtgaaa ttgccgttgc agagagatgc cacagcaagc caggcttggc accatagaaaa 420  
gtggttgc 427

<210> 5018  
<211> 327  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E4

<400> 5018

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tcggcttggtt caaggcatcg agtgaataat gtcactggtc atttgatgta atttcgaatc 120  
tcatacagtg ttggccattt cataggcaaa ataatgacta agagtttac gaaatcattc 180  
caccaaggga gtaaaggcgc acgaaagaaaa cccaaagcaa ttgacgggaa tcggaaaaag 240  
gggtggatca cgtaaattaa tccgataaac cgacaaccgg acctctccaa caaagtgttg 300  
cacggctgtc tacttaacgt tcagtga 327

<210> 5019  
<211> 362  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E6

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<400> 5019

gtcaggagtt cccgggtcga cccacagcgt ccggacagag ctgccacaga gctacttgt 60  
aagactgccc tcgaagatca cggactgaac tttgatccct tagatactga caaggacctg 120  
gtatatcctg agaaatatta tgagccttgt ggaggcgaaa tgtggatcct tgagcacat 180  
aacacagtgg ttggctgtgc tgccttttg cctattcctg atacgtgtgc gtagagttt 240  
cgaaagatgt acttttctcc gaacataaga cgcaacgggtt atggaaagct aataacttgg 300  
gccttagagt atccagcctt tgagttggaa tacacatagg gtacattggaa aacgtcgcac 360  
ct 362

<210> 5020  
<211> 451  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E8

<400> 5020

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actagtccaa gttcgatcc attaactttt accaaaacttt atgtgggttc tattcaacttt 120  
tctatttagtg aagaagattt acgcactatt tttgagcctt ttggggaaatg cgtttccttg 180  
cagttcaca aggaccctga aacgggacgt tcacgagggtt ttgggttgt tcaatacaga 240  
aaccacgaag atgcgaaaaaa ggcattggaa caattgaatg gacttgatct tgctggtagg 300  
cctttaaagg ttgggttggc aactgcagag actcagaaac ttcaagtaat gggtgctatt 360  
ccttcggag ttccctagtaa aatagctgca agaggatctt caagtagggg ttatagtgc 420  
tatatttagtg aattggatga aggtggagat a 451

<210> 5021

<211> 409

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-F2

<400> 5021

gaccacgcg tcagcccacg cgtccggatt tctgtttgac gcgcttcgtg tccccacttt 60  
cccttttttg taaatctcg aaaggctgga taggacaagc atcattattc aaggttaactc 120  
atgtataaggt gcaaataagg cttctgtcga agtttcttat accggaaatt ttaaagaaag 180  
acagtcgttt ttgccagcgt ctggcttag aagaagtggc tggctccctt tgaggctaac 240  
tgaagaaagc tactttggct ggccaggaat agtgaatatt gccaaagagct tattctgtta 300  
tattgtttct cagttgagag aatttcagc aagctcagca tttgttgccct gtaaaaaggg 360  
acttgctaga agcaatttat ttgactccag agaaaagttt gatatcaac 409

<210> 5022

<211> 459

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-F9

<400> 5022

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ccttcactga cggtggatgc tgcagttgta cgaggttga agccagcact agaaatttta 120  
ttggttacta gaaagaaaaga accgttccag ggtcgcttgg ctttcctgg aggtttgtt 180  
aatatggtg aggatcctga gcaggcagtt ttgagagaac ttgaagagga gtgtgaaata 240  
cgagggacga gtccttcgct cgttgccgtc cgtggaaagc caaatagaga tcctaggaaa 300  
cacgtggtaa caatatgtta ctatgttagaa cccgcacaga aagactctca ggtgaaagct 360  
ggtgacgacg ctgcgtcttgc tggttggat tctgtggaaa gtcttatgaa gagtccagaa 420  
cttttgctt tttgacacta cgagttgttgc caacaagtt 459

<210> 5023

<211> 463

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-G1

<400> 5023

gtccagaatt accgggcccga cccacgcgtc aggacaatgg ttgcaaagac tgctctgagt 60  
tgcctcttc tctcttcct tatcgctgcc gcagttgcag ccgacgtagt ttcagaggag 120  
agatggggat atgctcagca aacccaacaa cagcaacagt gccacaactgt atgtaaacag 180

tatgcatact atcagagtcc agtctgcact tccgtaacca cacagagccc atactggacc 240  
caatgctcga agactgtgca aaccttgtc ccaagccagt gcagttacttacccatct 300  
cctacatgga cctattgcag cacctacacc accactagcg taccatctca atgcagcaag 360  
gccgtgacta cctatactca aacctgctgt gcttatgccc aacaaacttc ctatgcagtc 420  
agtaccgagc aatatgttca ggaaactgttca tctgctcaat ata 463

<210> 5024

<211> 257

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-G4

<400> 5024

cgtcagcccc tacgtccgat cttagttcca gtgtacgcac ccatggttcg tcggagggtt 60  
tgcatttgtc acgagtttgt tgcaaagtgt cgcgagtgag gtttcttcaa atagtgcgag 120

aaaacctcat tgacgacgtc ggctcaaagc tcggtttacg gcgtgtacaa ttaggaccat 180  
catttggtcc ttcaaggcatc gcccagattg taagcacgtt tgaagtcgca ctgtagttct 240  
cagtaatgca gggggtt 257

<210> 5025  
<211> 449  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-053-Q1-E2-G9

<400> 5025

ggccgacgca cgcgtccaga aaaaagaaga gagctagaaa ggaggtgaga aagcatagga 60  
agtgaaacgg attaggaacc cgtgtagtct atgcagtaaa agaaagaatg agtaagaaaa 120  
aaggaggtca ttccaccagg ggagtaaagg cgcaagaaag aaacctcaaag caattgacgg 180  
gaatcgaaaa aaggggtgga tcacgtaaat taatccgata taaaccgaga acttacctc 240  
tccaagaagg tggcgtacgg ctgtcgaaag aacgtgctgt gaagtgagag aacgtacgag 300  
aaagccaagt gaggaaaaga aggcaagtag agggcggccc gagaaaggag aaggcgtaaag 360  
acgtgataca-gagtaggaag-aanagagaag-agagctagan-aggaggtaaa-agaagagtaa-420

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aaggactaga agaggtacgg aattcacga 449

<210> 5026  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-H10

<400> 5026

gccgacgcac gcgtccaccc acgcgtccgg gaaccttcgt attatgtcat caatgttcgg 60  
acgcaaagca gagtacaaga gagttttaa agttatgggg ttcaagtcca tattctcgca 120  
cgaaacaccg tattctctgg aaccagcttc agtttagcaa gcgagcagag ctccacagaa 180  
acgacactta tgcacgtaga ctattctaa ctatggaaaa agggaaagaa cagaaatttg 240  
catcaccaga agaagaaaga ctggcaaaga aacgtgaaga agtggaaaga ctgcgagccg 300  
ctgaaaagtt tatacgtaaa gatgaaggaa aattcgggtt tcctgtgtt gattatgtct 360

acgaaccaag caaaggagac agtttggtcg gtataacaacc tggaacatct tttgaggcctt 420  
tacccgatag tttcggtt 440

<210> 5027  
<211> 308  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-H5

<400> 5027

aattccggg ccgacccaag cgtcaggtca ctggaataac aatatattac aaattgcac 60  
tgtttggtat gagcgttca aagcttgata aagagattca agttgcttcc ttttggaaaaaa 120  
aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa agaaaaaaaaaa 180  
aaaaaaaaat aaaaaaaaaag ggtgaatgta aaagcaaata aaaagcacat taaaaatgaa 240  
aataaaatatta aagacaatgg ccataaaaat gaaaattgcg gaaaaggaa aacacttaaa 300  
caaaacaa 308

<210> 5028

<211> 441  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-H9

<400> 5028

attcacgggt cgacgcacgc gtccagtaaa acgagtctcg tcccaggcag agacaggaat 60  
atcatatatt ataaatagat atatatattc atattcaaag atagatagat cttgtttcg 120  
gtaggaatgt ctgttcttct ctctctccgc ttttccgtcg caaggcatcc tagagttgt 180  
ccaccactgt tgaaaaagta tttttgtgtg gaaagcactt caggcattcc aaaaagtgaa 240  
actcttcaa ccaatgttgc ttcttagtgac aatagactca aggtaaatct gttctctacg 300  
agttgttctt actggactct tttcagagta gcacggagga agattctgtt ctttgtatc 360  
gcaatcgccc cggtatccaa ccacttcaga ctccagttgg ctcgttaat aagcagcaag 420  
taattcccaa tgagaatcac g 441

<210> 5029  
<211> 416  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E1-A10  
  
<400> 5029  
  
ggtaacggtc aggaattccc gggccgaccc acgcgtcagc gtgagggttag ttcatcatgg 60  
ttgagacaaa acttcaagat ggtgttagtg cttctcttg gactgtcgt ctcttcctct 120  
acacagttat ttttagcattc tctgccacta tcattggctt ggatggacgt aaagcagaca 180  
acatatggaa cgacagctta ttctatgatg ggaagtacat taactttgt gcttattctg 240  
cctcttctgt tgtagaagga ggggaccatg gagcgtgtaa atatgtcatg gcgttggcgt 300  
ctataagttt gattctagtc tttttcttgtt ggcttttac atttgttagat gcgttgtatc 360  
ctattcttac caagtttgg tttattgaat tggtatcaa cgtgttcaa acaatg 416

<210> 5030  
<211> 400  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190=054=Q1=E1=A12  
  
<400> 5030  
  
gtcaggaatt cccgggctac cttttcggtt gtattgaaga atcatttcc ggaatgtgag 60  
caacaactag agcaatggtt ggtggatacc tgtggatca aggaaacggg tgaagattt 120  
tatatgcgtt ggaacgagca acacatgtct tggttgcAAC ctttggaaAG aagtcaacga 180  
caatggttgc aaagattgta ttccacagca ccgattgtac aattgcaagg gaagatagag 240  
gagttggaag atattcgat tcaagttagt tgaaaagtat cgctatccta tgataagcaa 300  
cgcagtctt ggtggaatca gaatagcaac aaaagagcca gtcggaaac ttggtatatt 360  
ctactggta aatacaacac tggaaaata agtgctttc 400

<210> 5031  
<211> 183  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A2

<400> 5031

cccaagcgtc cgcccatgct tccgacaaat tcccaaacgg agttgagctc gaagacttca 60  
aacgggtctt gtcctgcagg aaactatcca aaactaaagc aaagttctta taaaaaaaaa 120  
aaaaataaaa aaaaaaaaaaag aaaataaaaa aaaaaaaaaaaa aaaagaaaaa aaaataaaaa 180  
ata 183

<210> 5032

<211> 311

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A5

<400> 5032

gaccacacgac tcagccccacg cgtccggccca cgcgtccggg atgccatcct tattggtaca 60  
agtagcctat tgttattcatg atgtgccacc tatatctacc tgtgtacgca ctatgttctc 120  
cgagtttgg agaagtcatc acgaggaatg gcccaaacaa aagcaaatgt tgcaagccga 180  
tcaaagagaa gcgttgaatg aattgctcat cgcaccaagt tattatgctt gaatcggtgc 240  
cctcctccat aaaacccatc tcgtggcatt tttttttaaa aaaaaaaaaaaa aacaaaaacat 300

aaaaaaaaagcaa g 311

<210> 5033

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A6

<400> 5033

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gcccacgcgt 60  
ccggaaagaa agaaagataa gtgaatatca tatggtgat gtgagtccat ggccaaatact 120  
gacagtagta gcattgatgg gaatattgat aggaatgata gagtgatgc attcgatgg 180  
taagaggata ttgataatgg gagtaataag tatgttgatg agtatgtatg gatggtgag 240  
ggatgtataa agggagggag tattagaagg tccaaacaag agaagtcatc agtggggaaa 300  
attggcaat gtacaggaa gtatgaccca gtaatgagga gtggagtaaa cagaaaagga 360

agtaaaagga gggaatgaag ggaagttatg gcaaaaacac gtgccagcag cagcgtaaa 420

a 421

<210> 5034

<211> 412

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A7

<400> 5034

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc gttgtctcga gacgtaattt 60

gtcgatggca atgtctacta ccaagccaaa agtacttgcg ttgtatcgac atatgttag 120

atgtattaaa actttacccc cacaagtaca gccttactac agatactatg tgagacaagt 180

atgtttttt gtttgttggta caacactcggt tctctttac ggtacttttag caattcaata 240

gtcacgcaga cgagatagaa gaagaaagag tggaagaaat catatccaag tctcggttctt 300

atattccgta tatatttagac aaggtaagtt tgtgttttat ttgctgtgaa tatttctcaa 360

aagacttgca cagtacaata gtaaaccacc tagctaagac tttcggtggac gt 412

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<210> 5035

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-054-Q1-E1-B1

<400> 5035

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cgtcaatcac ct当地ggata tcatcaacga gtggaaatggat ttgggttccaa aggccctcggtt 120

cgaaaaatggaa acaactttcc caataatgtc tttattgaag atgcgcagtc cgttcgaaga 180

agtgatcttc cttttaactt ctttatggat cgttataccg aagcttatcg taatgaaacc 240

aaacagtttgc ttcaatgtgt cttggaaaac aaagaacctc cgacaagtgg tcgagatgga 300

actgctgcaa tggcaatggc aattgctgca aaaagagttt gttggggaaa agaaccgtta 360

aaacttacga aaattacccc ttngaaataa taaaatggtg ggtttatcca ntccg 415

<210> 5036  
<211> 406  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E1-B10  
  
<400> 5036  
  
aattcccccggg ccgacccacg cgtcaggtgg gaaacatgtc gaagaaggct tctggaagac 60  
tttattgtaa agggtagtg ttgggtata aaaggtcaca acggaatcaa tattcttagtc 120  
aaaccagaat caagatacag ggagttgaag atcgagcttc gacagcgaaa tatttaggaa 180  
agcgtgtggc atatgttac cgtcaaaaga gaccaagaaa gagtggttgg gaaaaagaaaa 240  
caaagattcg agtgatttgg ggaagaatta ttgcaccaca tggtaataga ggagttagtac 300  
gtgccaaagtt tcgaaacaac ttgccacctt ctatgtttgg caaacgagta agatgttatgt 360  
tgtatccaag caacgtataa acaagtgttttta atcttt 406

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<210> 5037  
<211> 254  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-B7  
  
<400> 5037  
  
acccacgcgt cagatcggtt ttgagatatg cgaacatcca tcacattcac ttgttggaca 60  
ccgttgcattt cttttttttttt aaacaactct 120  
attccgttacc acgctaacaa cataaggagt tttttttttt cttttttttt 180  
cctgtcgaga tgcacaagct agaagtggat gcaaaccaga tgcgaatgca ttttggatca 240  
gttcccaagc aggt 254

<210> 5038  
<211> 415  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-C1  
  
<400> 5038

gggtcgagcc acgcgtccat ggaagaagag tcttatatcg atccccattt atccaaagtt 60  
gcgaaagaag aaggaaataa tttgtataaa caaggccaat ttccagaagc cctgcagaaa 120  
tatacggaaag caatcaaacg caatccaaag gatccagttc cttatagtaa tagagcagct 180  
actttgacca aactaggaca attcccttct gctttagcag attgtaaaaa atgtttgcag 240  
ctagatcctc aatttgtaaag agcttatgcc agaaaaggtg ctattcattt ctatatgaaa 300  
gaatatcata agagtttggaa tgccstatcaa caaggacttc aagtggatcc taataatgca 360  
gaattgaaag aaagattgca gaaaactttt agtgccaatt gcaaacaaca acgct 415

<210> 5039

<211> 336

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-C10

<400> 5039

ggtaacggtc aggaattccc ggggtggacc gcaaatacaa gcattcaagc acctctttat 60  
tggatatcat ttctatggac aaggtagaag aactaaagtc actggtaat tccgtggaaag 120  
aagactgcaa taaatttttt gagaacggaa acaagtcage tggagttaga gcaagaaaga 180  
acttgcaaga aatcaaaaaaa cttgctcaag aactacgcat agagatacaa gcgacgaaac 240  
aaactgaaaaa gtgatacttt caacttgca gaatcaacca tggcttgtga aactattcca 300  
gtttttcaaa taaataccctt tttcgtttggaaag 336

<210> 5040

<211> 390

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-C11

<400> 5040

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ttcacgaaag aacatcgaa atgcccgtcg acggaaatat aattttcatt gttggaaatc 120  
gattttgcgc aacctttgca tcccctaattt gttggtagag acggcggaaa agcgaagcct 180  
ttgaagaagc caaaggctac ttcgaaggaa ctgacggagg aggatttggaa atttaagaaa 240

agacaaaagg aggagcaggc caagttgaaa gcagctcaac agcagttgaa aggaaaggc 300  
aagaagtgac tttgcttcta cgagtttagt aaacaaacgc tttatttgtt tctacaacta 360  
ttcgggtact ttttgatagt ttccgtgaac 390

<210> 5041  
<211> 334  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-D1

<400> 5041

ggtcagaatt accgggtcga gccacgcgtc cgtgcaaacg tccgatgaac ctcacaaggt 60  
tggcagtaat ggagcatttc aagaatttac aatgcttggt tgactatcaa cacattgata 120  
ggtgaataaca tggtaataca taggataagt ttacaaaaga ctcaagtcca tcgaatagaa 180  
tccttagtggc atcaacattt acatccgatt ggattctggt aacatatata gatcaaattt 240  
cattggaaaa cagccgtact gatgaccgat acacgtacat ccagatatcg gcgacccact 300  
ttaaagttag atattggtcg ataaggaact aggc 334

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<210> 5042  
<211> 417  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-D11

<400> 5042

ggtcaggaag tcccgggtcg acccacacgt ccgattcatt gcggatcgcg tttggggctt 60  
gtaacagtca ccatgaagta ttcccaagtt gtatcgctgt ctagaagaaa gcagaggaga 120  
gcatacattc aagcaccatc gtctgtacga cgaataactca tgagtgcattt cttgtccaag 180  
gaactacgta tgatatacag gttcggttct ttaccttatgc gataagaaga cgaggtaatg 240  
atagtacgct gagcttcag gggtagagat ggacaagtca caacgtgttca tcgaggaaa 300  
tatcgatatac agatcgagag agtgaccaga gaaaatgcga atggaatgac tgttagctgt 360  
ggaagacatc catcgagtgt tgtagtacc aggtgaaagt tggacacgga caagaat 417

<210> 5043

<211> 327  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E1-D12  
  
<400> 5043

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agtaatgacc atgaactatt ccaagggttgg atcgctgtct agaagaaagc agaggagagc 120  
atactttcaa gcacgatcgt ctgtacgacg aatactcatg agtgcattgt tgtccaagga 180  
actacgtatg atatacagcg ttctgtttt acctatgcga tcagaagacg aggtaatcat 240  
agttcgcgga gctttcaggg gtagagatgg accagtccca acgtgttatac gagggacta 300  
tcggatacag atcgagagag tgaccccg 327

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<210> 5044  
<211> 379  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E1-D2  
  
<400> 5044

acgcgtccac ggaagcgtgg gtttgacaca aaatattcga cgtcgccatt gagcagccgt 60  
gatggacgt gtaatacggag gccagagaaa gggagccggt agtgttattc gtgcgcattgt 120  
cgtcgaatga aaaggagcag ccaagtttag agcgttggat tatgccaaaa gacacggata 180  
tctaagagga gtcgtcaggg aaatcatata cgacccagga agaggagctc cttggctcg 240  
agtggaaattt agggatccgt atagatatga gagaagagta gagacttttta gtgcaccaga 300  
aggttatat acgggacaat tcctgtactg tgaaaagaaa gcccaactaa gcaatcggt 360  
aagtcccttcc acttgggttc 379

<210> 5045  
<211> 392  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E1-D3  
  
<400> 5045

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tttctctaca tattggtaaa gcaggtgttc aagtagcaaa ctcttgctgg gaactttatt 120  
gtttagagca tggtgtcaac gctgatggaa ccattgataa aaaggaaac acagcaaacg 180  
aagaagcttt tggtacccccc ttaccaga caagctcggg acgatatgtt cctcggtgtg 240  
tacttgcga cttggAACCT tctgtcgtag atgaagtccg tacaggtgcc taccggccatc 300  
tctatcatcc agaacaactt atttccggca aagaagatgc tgcaaacaat tatgcaagag 360  
gacactatac tatttggaaaaa gaaataatcg ac 392

<210> 5046

<211> 306

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-E1

<400> 5046

ggtcaggaat taccggggccg acgcacgcgt ccacccacac gtccgccccac gcgtccgaga 60  
gtttattcat ttacctggcg atgtgttttc caatccgcat ccaatgcagg ctataggaca 120  
agttccctgtt gctggctggg tacaaatatt tcttcttggt gccattcttgc agatgataga 180

catagcagct attaaggaaa ccctccaggg aaatagagag ccagggtatt tcggcttgc 240

tcctctgggt ttggcaaacg acaaacaggc tcatgatcga tatctttgt cacaactgaa 300

gaatgg 306

<210> 5047

<211> 209

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-E5

<400> 5047

ggtaacggtc aggaattccc gggccgaccc acgcgtcaga aaaaaaaaaaaa aaaaaaaaaaaa 60  
aaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 120  
aaaaaaaaaggc ggcggccccga caggctccag gcttaaatcc tcgttcatgc tacatcaaac 180  
cttttctatac ttgtcaccta actccaatt 209

<210> 5048  
<211> 188  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-E8

<400> 5048

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gtcaacagaa agtgatgtta catgagaaaa cgtAACAAAT acgacagtga agtctggact 120  
gcaagtaaag ttcagcgaa cagatgaaag ggcgtactac atcattcaca atacagcgta 180  
ccgtccctg 188

<210> 5049  
<211> 446  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-054-Q1-E1-F10

<400> 5049

gtcaggagtt cccgggtcga cccaagcgtc cgcgttccga ttgcaattgc acttgaagag 60  
atttgtgtgg ttccctagttg ttagtgtttg tgtggatgtt ttatggggaa ccaaaactcc 120  
tctggagtat tttcaccgga aatgtcttat cgtataggag gtactagaag tggttccgaa 180  
actttcgtta accacagtga tgcttcttc tccaacaacc aaccctttgt agacaatgta 240  
tatgttttg aaactcctca aggagtggca gcaacaaaca atataccctt tcactcttca 300  
gaaagaacat atcggggaca gaggtccgtt tctagggcca atcttgcctt ggaaggtcag 360  
cctccaagta accaacagct gccttctcaa caacaggtta gttgatgtat gccttgctcn 420  
cttcgatagt ttctgatata tatata 446

<210> 5050  
<211> 403  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-054-Q1-E1-F3

<400> 5050  
ggccgcaccc acgcgtcagg ttcgttcaga tctccgcagc ttaacgatta ttgtggattt 60  
ttgttgcaag gtctcttat aagaaaagac taggattagt ttatacaaac gacagcaaac 120  
tttgtatctt ttgttcctg gtaaaatttt ttatctccta gtgggttgtt agctangaaa 180  
agggttggtt taaagctgtg ttacctttag aaggtaccaa atatccactc ctcgtactag 240  
tctgtttgta aggcttactg ggagaaactt ggtgaaactt ttcaacttgc taatgtgc 300  
ggtcgcctca cagtcgaata ggctctgaac ctggtaagc tattttgagt aaagagaccg 360  
atagaaaaag agacagtccc gcaccctcat ggagaaatgc ttc 403

<210> 5051  
<211> 398  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E1-G12  
<400> 5051  
ccgggtcgac ccaagcgtca gatttgggt ctggacatc gaacattccc tcaagtgaga 60  
gatattgcag gaatgtgaaa aattgactgt cccagagttt aacatagcaa cgtatcaacc 120  
atctggcgaa ctttgatgg tcattgtact tatcgaaaga atctcgagac taacttcg 180  
acaatagata tcgcagattc tagctggat tatcgaaatg cagaggaaga tacctccatg 240  
tcaatctgta cagaaaatcc ccaagcagat aattcactag ctgcgaaact tgagttcaag 300  
atatgttgc ttgatgtacgtt actctcgatc attttccgag attccatatt ggatgtatcg 360  
gcgattggat gtgcatacgat acgctgtact ccaggctc 398

<210> 5052  
<211> 122  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E1-G2  
<400> 5052  
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caaattgacac ggaattactg agggacgctg acggttacgc accaaagtga aacggtagtc 120

ga

122

<210> 5053  
<211> 392  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-G9

<400> 5053

ccgggctcga cccaagcgtc agagcgatg cagaaattgc agttcgtaat ggagtagctg 60  
gtattattgt gagcaatcat ggagcaagac agttggatac ttctcttgcc actattgatt 120  
gtttggaaaa agtacttgca ggtgcacaag gcaaagttcc tgtgtttgta gactctggag 180  
tacgtcctgg tacagatata gtgaaaagtt tggcacttgg tgctcaagct gtacaaattg 240  
gtcgtggtgt ctgtgcggt ttagcagttg gtgggaaata aggtgtggat cgagtgttga 300  
agttgcttcg tgatgagttt gagttggatc tgggactttg tggctgtcat agtgc当地 360  
atattcgtag agatatggta atcagaaaaca ca 392

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<210> 5054  
<211> 368  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-H10

<400> 5054

ccgggctcgcac ccacagcgtc cgcggacgcg tggcggacg cgtggcgga cgcgtgggtt 60  
cctagtggtt tttttacaga ggagatttatcgatatactg gtttcgagca aggagctatc 120  
aatttaactt ggagtttatga tgcctttgtt actgcggttt ggtcaagaga agatgttcac 180  
aagttgtttt ctaaatattt tgaaccttct tctccacctc tacctgttat gccaggac 240  
ggtggtttat cttctccata ataagaggca cttgtgcact ttggatattt ttgtggttca 300  
cataaaagaca agcttttatta agaagcacac agaagaaaaaa atcagttacaa ttgttaacaca 360  
atcgcaac 368

<210> 5055  
<211> 409  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E1-H2  
<400> 5055

gggcccaccc acgcgtcagg tggaaagag gacgttggac gggcattgtg gaagagcg 60  
ttggttcctg gatagctcat gtggcgaaca actcttgcg ccttgtaaag acgatacc 120  
atacacaggg taatgcaaaa aagtttgcc gatcaagttg cacaatcgac atacacaacc 180  
atacgtgggt ttgccacacc tacacatgcc ctgcatacg acgcccacgt ggctatggta 240  
atgttcccaag catctactgc aatgaatggc gtacttcctc aacatgtgcc tacagctgct 300  
caactgaaac ctgcagtggt gactgtccta gaatatggca cagatgacaa atatttgtg 360  
agtagtggat ttgccttgc taccaaagca cgaatagata ttttggctg 409

<210> 5056  
<211> 264  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E1-H3  
<400> 5056

cccacgcgtc aggacttggt aaaataaagc aaggagatcc actcaatttgc gagactatgg 60  
tgggagctca agtatctact gaacagatgg ataagattct tcactatgtg gaattggaa 120  
agaaggaagg tgctcagtgt attgttggat gaagtggaaa gaaagctatt ggacgtgatt 180  
tcaaagggtgg ctattacatt gaaccgacaa tattcaaggg agataacagg attagaatat 240  
tccaggaaga gatatttggg ccat 264

<210> 5057  
<211> 436  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E2-A10  
<400> 5057

aattaccggg tcgacgcacg cgtcagcgtg agggtagttc atcatggttg agacaaaact 60  
tcaagatggt gtttagtgctt ctctttggac tgttcgtctc ttcctctaca cagttat 120

agcattctct gccactatca ttggcttggaa tggacgtaaa gcagacaaca tatggaacga 180  
cagcttatttc tatgatggaa agtacattaa cttttgtgct tattctgcct cttctgttgt 240  
agaaggaggg gaccatggag cgtgtaaata tgtcatggcg ttggcgtcta taagtttgat 300  
tctagtcttt ttcttgcgttgc tttttacatt tgttagatgcg ttgtatccta ttcttaccaa 360  
gttttggttt attgaattgg gtatcaacgt gtttcaaaca atgtggtggt tggttggagc 420  
aattgttgcata tctgca 436

<210> 5058  
<211> 219  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E2-A2  
  
<400> 5058  
  
agtacggta gaatgccgg tcgaccctag cgtccacgca cgcgtccgccc caaacgtccg 60  
acaaattccc aaacggagtt gagctcgaag acttggaaacg gtcggtgtcc tgcaggaaac 120  
tatccaaaac taaagcaaag ttcttataaa aaaaaaaaaaag aaaagaggaa aaaagaaaaaa 180  
aagaagaaaa aaaaaaaaaa aaaaaaaaaa ggggaaaaaa 219

<210> 5059  
<211> 366  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-054-Q1-E2-A3  
  
<400> 5059  
  
cggtcgacc taggcgtccg acggcgtaag acgtgataca gagtaggaag agaagagaag 60  
agagctagaa aggaggtaga agaagagtgg aaggactaga agaggtacgg aattcacgac 120  
gaaggagcgt gaaggaagga ggaatccaa gtaatcgagg aagaaaaagc ttcggtgaaa 180  
gcgtgaacgg atttggta cacactgccc gtcaagttct ggaagtgtgc tangaataag 240  
caggagaagt agaagaggag taggagggcg ggagggagg tggagacgta agacgtgaaa 300  
aaaaagcgta agacgtgaga cagagtagga agaaaagaga acagagctag aaaggaggtt 360  
aaagaa 366

<210>	5060	
<211>	436	
<212>	DNA	
<213>	Cyanidium caldarium	
<223>	Clone ID: LIB190-054-Q1-E2-A6	
<400>	5060	
	ggtaccggtc tagaattccc gggccgaccc acgcgtcagc ccacgcgtcc gcccacgcgt	60
	ccggaaagaa agaaaagataa gtgaatatca tatggtggat gtgagtccat ggccaatact	120
	gacagtagta gcattgtatgg gaatattgat aggaatgata gagtggatgc attcgatggg	180
	taagaggata ttgataatgg gagtaataag tatgttgatg agtatgtatg gatggtggag	240
	ggatgtata agggagggag tattagggtg gtcgaggcga gggaaagtca cagtggggaa	300
	aattggcaa tgtacagggta agtatgaccc agtaatgagg agtggagtaa acagaaaagg	360
	aagtaaaaagg aggaatgaa gggaaagttat ggcaaaaaca cgtgccagca gcagcgtaa	420
	aacgtgtgta gcaagc	436
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<210>	5061	
<211>	412	
<212>	DNA	
<213>	Cyanidium caldarium	
<223>	Clone ID: LIB190-054-Q1-E2-A7	
<400>	5061	
	ggtaccggtc aggaattccc gggccgaccc acgcgtcagc gttgtctcga gacgttaattt	60
	gtcgatggca atgtctacta gcaagccaaa agtacttgcg ttgtatcgac atatgttgag	120
	atgtattaag actttacccc cacaagtaca gccttactac agatactatg tgagacaagt	180
	atgtttttt gtttgggg caacactcgt tctctttac ggtacttttag caattcaata	240
	gtcacgcaga cgagatagaa gaagaaagag tgggggaaat cagatccaag tctcggttctt	300
	atattccgta tatattaaac aaggtaagtt tttgttttat ttgtgtgaa tatttctcaa	360
	aagacttgca cagtacaata ataaaccacc tagctaagac tttcggtggac gt	412
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<210>	5062	
<211>	420	

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-B1

<400> 5062

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aattgtcgtc aatcaccttc gggatatgat caacgagtgg gagttttgg ttccaaaggc 120  
ctcgttcggtt ttggaaagaa ctttccgaat aatgtctta ttgaagatgc gcagtccgtt 180  
cgaagaagtg atcttccctt taacttcttt atgggtcggtt ataccgaagc ttatcgtaat 240  
gaaaccaaac agtttgtca atgtgtcggtg gaaaacagag gagcgcggg gagttggg 300  
gatggaactg ctgcaatggc aatggcaatt gctgccaaaa agagttgtt ggagaaaaaga 360  
gccgtaaaac ttagcgaaat tactccttaa gaataataaa atgttggttt aatctagtcg 420

<210> 5063  
<211> 411  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-B10

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<400> 5063

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aagactttat tgtaaagggg tagtgttggg ttataaaagg tcacaacgga atcaatatcc 120  
tagtcaaacc agaatcaaga tacaggaggt tgaagatcga gcttcgacag cgttttattt 180  
aggaaagcgt gtggcatatg tttaccgtgc aaagagacca agaaagagtg ttggagggaaa 240  
gaaaacaaag attcgagtga tttgggaag aattattgca ccacatggta atagaggagt 300  
agtacgtgcc aagttcgaa acaacttgcc accttctagt tttggcaaac gagtaagagt 360  
tatgttgtat ccaagcaacg tataaacaag tgctttaaaa ttttattctt t 411

<210> 5064  
<211> 436  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-B12

<400> 5064

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agaaaacaact tttagaagatg aacttgttctt agatgcacca gcacaaaaga cattaaactt 120  
atataaaagta gataattata cttttggcac gaagcagtca tcccaaaaac aacacgaaag 180  
aatccacag cgtttaaagg aaaaatatca agaaaggggt ttgaggcact ctgttgagg 240  
agtacttctt gtacatcacc atcgacatcc gcacgttctt gtattacaac aaaccaagga 300  
ctctgaaagt tttggcttc ctgggtggccg tttgcgtcca ggtgaagggt acttggagg 360  
tttatcgagg aaactagata atcgcttaag gagtccctca caagagaagg gcagctggg 420  
aataggagac ttttg 436

<210> 5065  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E2-B3  
  
<400> 5065  
  
aggtagcggt tcagaagtcc cgggtcgacc caggcgtccg cccacgcgtc cggataaata 60  
tggaatcctg-gaagggttga-tgacgaccgt-tcatgeaaact-aetgecacecc-aaaagacagt-120  
agatggacct tctcacaagg attggggagg aggaagagga atttgaata acattattcc 180  
atcttctact ggagcagcca aggctgttgg taaagttatt cctgaactga atggcaagtt 240  
gacgggtatg gcttccgtg ttccttgtcc ggatgtttct gtcgtcgatg tcacgtgtcg 300  
tttaaagaca ccaaccactt atgacgattt caaggcaacg atgaaagctg cgtcagaaag 360  
caaagcttta aaggaaatat tggcatatac cgaagatatg gtagttctta ctgactttgt 420  
tcacaatagt c 431

<210> 5066  
<211> 393  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-054-Q1-E2-B9  
  
<400> 5066

gcgtcagtga tgagctgttc caacggcaaa agagaaacga gctctagtgc aacactgaat 60  
gacctttaag gcttgatttt tccgatttac atactaaacg ctgattttac acacaactca 120  
cgagaaattg atatttaggt cgacgagaaa gaaacatatt gagaactgat gtaaatctgt 180  
ctagctgttgc aataaagac aagctacggc gtcttccaa gtttcttca actcttataa 240  
acaacaacaa taaaacgcct attcactact gtaaagtct tttcttcga taaaaaaaaa 300  
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagga agaaggcgg naggtctaaa 360  
ggatacatgc ttacgtatgc gtgcattcaa cgt 393

<210> 5067  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C1

<400> 5067

tagcggttaa gaaggcccgg gtcgaccagg gcgtccgtgg aagaagagtc ttatatcgat 60  
cccgatttat ccaaagttgc gaaagaagaa ggaataatt tgtataaaca aggccaattt 120  
ccagaagccc tgcagaaata tacggaagca atcaaacgca atccaaagga tccagttcct 180

tagagtaata gagcagctac tttgacccaa cgtggacaa ttcccttctg cttagcaga 240  
tttgtaaaaa tgtttgcagc tagatcctca agttgttgc gctatgcga gaaaaggtgc 300  
tattcatttc tatatgaaag aatatcataa gagttggat gcctatcaac aaggacttca 360  
agtggatcct aataatgcag aattgaagga aggattgcag aaaacttga gtgctattgc 420  
agaacaacaa cgctccgaga aac 443

<210> 5068  
<211> 323  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C10

<400> 5068

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tatggacaag gtagaagaac taaagtcaact ggtcaattcc gtggagaag actgcaataa 120

atttttttag aacggaaaca agtcagctgg agttagagca agaaaagaact tgcaagaaat 180  
caaaaaactt gctcaagaac tacgcataga gatacaagcg acgaaaacaaa ctgaaaagtg 240  
atactttcaa ctgtgcagaa tcaaccatgg cttgtgaaac tattccagtt tttcaaataa 300  
atacctttt tcgtttgtaa aaa 323

<210> 5069  
<211> 185  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C11  
<400> 5069

attcacggct cgacgcacgc gtcagccac acgtccgatt ctgagtaaaa aagagccggg 60  
ttacttcact aaagaacatc ggaaatgccg ctcgacggaa atataattt cattgttggg 120  
aatcgatttt gcgcaacctt tgcattccct aatggtttgtt aaagacggcg gaaaagcaaa 180  
ccctt 185

<210> 5070  
<211> 353  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C3  
<400> 5070

cgggtcgacc tacgcgtcga gacaatattc acaacgcact ccacccaaca agactgttca 60  
cttcaggggga gccttgtgag tggttcggga gagtattcac tggtttcttc atagcggtgc 120  
agtttttggc ctctttgtgt gtgtctctg aggaatgggg cttcctcgtc ggcgttaaggt 180  
ttcgtcaaca ttgaggatt gtccgaatat tttgttgctt gctcgtgccg ttggactgg 240  
aatagttcgt gctggtggag cgggggtgggc gggtcggggg tgcttatgaa cacagctgcc 300  
tatgttggtt tgaaggttt gactttgtt gtgtcggctt ggccgccta tgt 353

<210> 5071  
<211> 224  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C5

<400> 5071

ggtaccggtc acgaattcgc gggccgacgc aggcgtgagg cttgagcggc agagcaatgg 60  
tttctggca gccttggAAC gaggggacgt gtgacttggt tcaaaaatATG tttcgggAAA 120  
cgacccacgg gaatgtttct agttatcgCG agggatgttG agggctacAG aatgagcaAA 180  
gtgtctgCTC aagtCGtctG ggtAAAACCC catAGATTT ccaa 224

<210> 5072

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C7

<400> 5072

gtaccggta ggaattccccg ggccgaccca cgcgtcagcc cacgcgtccg caagaacagt 60  
gggtgcTTG taccatgtcg ttctgtcTT acaagtGAAT acgttccTAT gtttatctgg 120  
actcattctg gcagttgtaa ctattttca gagcctagtt atgtatAGAA gctcaactat 180  
agaacagaag gtgtccgcta aacaaaAGTC ttCAAAGAAA gaccccAGAA aagaacaagg 240  
agtttcaggt tgtcTTTGA cgtgggtcc aagggAAGCA ggcattcaac tacGCCATTc 300  
ggttcacAGC tatggTTTCC ttcttcatct ttGAactgat cacatacaac cggtagaAGC 360  
gatgggAGTC gagacaAGCT agaaaaAGGA actcgcaACA agtcaaAGGC cacaAATAAG 420  
ttgttatctg ataaACTGT 439

<210> 5073

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C8

<400> 5073

ggtaccggtc aggaattccc gggccgaccc acgcgtcAGC gccctccATA tttcacttTA 60  
cagacccAAA ggagacCTGC tatggcCTCA tcgtgccACT tcccaAAAGG cgTTTCCAG 120  
agtctGCCAG gtaagttca agtgcgttAT gggtgcGAGC gttcatcCTC caaAGTCTCT 180

ttatataata cttattgggg tttgaaaata aactactctc gagtggcagt aacttgata 240  
cttgctgcaa ccatgtgttc gacgcgagct cggggtcgcg gttttgata atactgcgtg 300  
gttttgcgaa gctgaaggga tagaacgtga tttaggcaaa gttggcggtg gtgcagcaag 360  
ctcggggaaa acctctactg gtgtatctcg gactgttaact agaggagtga acctaagtgg 420  
agcagatccc tcggg 435

<210> 5074

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-D1

<400> 5074

agtacggta gaatgtccgg gtcgacccat gcgtccgtgc acacgttgga tgaacctcac 60  
aagggtggca gtagaggagc gtttgcggaa gttacaagtc tgggtgtgac tatcgacact 120  
tgataggaa tacatggtg tggcatagga taagtttaca aaagacgcaa gtcaatcgaa 180  
tagaagctta gtggcatcaa cattgtcatc gggttggatt ctaataccat atatgagatc 240  
aatgtctttg gaaaacagcc attattaaga gcgatacggg gacgtccacg tgacgggaga 300  
cccaacttaa agtgtgatat tggtaagat ggaactaagc aagaagatat tgcaactacc 360  
ggattacata tggataaagc agcaactact gttttccaaa caactaccac t 411

<210> 5075

<211> 438

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-D10

<400> 5075

aattaacggg ccgacgcacg cgtcagatca aatgtgtgtt acctcgagaa acgtatcc 60  
acaattcctt ttctactctc caaggagtgt accaagaaaa accgtaaaca agacaactca 120  
actcaattct gccaaacgaa cgagtcctt ctgcagtaac tttgaagaat ctgaagctct 180  
gtgactgcgc acggtcacga gacttgtatg aaaagtacta gctcaagggtt actactggaa 240  
caaaaacaata ctgcaattca cttgttcgat ccattgcttg caagcaactt acgagtcaaa 300

cagcgactcg aagaggcacc aacgttacta ttcttgcaag aatagatatac gcctagtgca 360  
acaacataag tataatattgg tatatttgca attttatttc gtcaaaaagat gctatattta 420  
cttacaagga caaaagtca 438

<210> 5076  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-D3

<400> 5076

gtagcggtt agaatgtccg ggtcgaccca ggcgtccgct tttatctttt gtagcacaaa 60  
cacaaattaa agaacaatgc gtgagggttag ttctcgacat attggtcaag caggtgttca 120  
agtagcaaac tcttgctggg aactttattt ttttagagcat ggtgtcaacg ctgtatggAAC 180  
cattgataaa aaggaaaca cagcaaacga ggaagctttt ggtacccctt ttacccagac 240  
aagctcggga cgatatgttc ctcgttgtgt agttgtcgag gtggggcctt cgggcgtaga 300  
tgaagtccgt acaggtgcct accgccatct ctatcatcca gaacaactta tttccggcaa 360  
agaagatgct gcaaacaatt atgcaagagg acactatact attggaaagg aaatagtcga 420

ccttactttg gag 433

<210> 5077  
<211> 308  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E11

<400> 5077

aattcacggc tcgacgcacg cgtcagatac aattgacgga aacatttact accaaaaata 60  
ttctttctgc agccattagt attcctcctt gtgacaagga atgtataat aatgacgaga 120  
ataacaatta gaggttatcc caagttccg ttctctttc ttcctcttc atttggcct 180  
tgattcttc cacaattaga ttggaagggg ctaagaaata gaaaatagtt tctattccat 240  
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ataagaac 308

<210> 5078  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-054-Q1-E2-E12  
  
<400> 5078  
  
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ttactacata cgcatattcaaa catatgacca atgcaatgac gaatacaggt acctttgtt 180  
gtttctatgg aggtcttact attctcggtt ggatgttatct catgttcttt atgccagaga 240  
ccaaagacaa gactctggaa gaattgaatg aagtatttga aaggccgacg atggacattt 300  
tttagagaaaa tgtggtccga gtgaaagaaa ctgcaatga tttgattcac atgcgttgg 360  
gaaaatatttgc ggtcttatcc aaatagacgt gttttccccg tttgtttga ataaaagttgc 420  
gta. 423

<210> 5079  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E2-E7  
<400> 5079  
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gttttcttgg gagcagttgt acattcaaca tcatcaaatg ccaaaggag gaaagaaaaga 120  
ttcttcaaag aaagaagcca caagtaaaccc tgccggcggca gatgctacaa agacgacaga 180  
aaagtctggc ccggaaagcca agttgaaggg aactggtgca aagaaacaat aaaaagttga 240  
ctatgcatgt gcagtcctgt tatgtttgt gagttctgtt tgatagttc cagctattct 300  
tttggtagtg aataaaagaga aaattttta taaaaaaaaaaaaaaa aaaaaaaaaaaaaga 360  
aaaaaaaaaaa gagagaagga gaaaaaagaa aaaaagagaa gaaagaacaa gggagcaggg 420  
qqaaggcaaa aaaaaaggggg ggg 443

<210> 5080

<211> 428  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E9

<400> 5080

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ggtagagaca tgcgtttat tcgcaccgga atcagaaatg aatatgtta attccatatt 180  
tgaaaagtac caaaaagaaca gagcaggcaa cggaaatcatg ttgcattata ttttcagtt 240  
gttccaattt cctcgctcat acaaaaagttt atcctatctt tcacagctga atcaagctct 300  
atgtatgaaa tgtggcgtcg aacactttcg tagacaaatg ccgtttgca tgggctctct 360  
ttactggcag ctgaatgatt gttggccagt gactagttgg agtagcatag aattcagtgg 420  
tcgctgga 428

<210> 5081  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F1

<400> 5081

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agccttccac aggactagat ccagactcca aacacaagct gtggcaatgt atccaacaga 180  
aaaaagaggg caaaactatt gtttaacga cacactccat ggaagaagcc gaaagactgt 240  
gtgatcgta cggattatg gccagtgcaa ctttggaaagg tgtgggtccg ccagaggaac 300  
tgaagattcg tcttggaaaa ggcttccgtc tgaatatttc ttgtccaaga agacgcgtta 360  
aacaagttct ttcgtttata gaacaacagt atgcagatgc attttggac cattccttag 420  
cggtaatg 429

<210> 5082  
<211> 434  
<212> DNA

<213> Cyanidium caldarium  
 <223> unsure at all n locations  
 <223> Clone ID: LIB190-054-Q1-E2-F10  
 <400> 5082

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gtatttcac cgaaaaatgtc ttatcgata ggaggtacta gaagtggttc cgaaacttt 180
cgtaaccaca gtgatgcttc tttctccaac aaccaaccct ttgttagacaa tgtatatgtt 240
tttgaaactc ctcaaggagt ggcagcaaca aacaatatac ctttcactc ttcagaaaaga 300
acatatcggg gacagaggc cgtttctang gccaatcttgc ttggaaagg tcagcctcca 360
agtaaccaac agctgccttc tcaacaacag gttagttgtat gtatgccttgc ctcccttcga 420
tagtttctga tata 434
  
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<210> 5083  
 <211> 434  
 <212> DNA  
 <213> Cyanidium caldarium

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<223> unsure at all n locations
<223> Clone ID: LIB190-054-Q1-E2-F11
<400> 5083
  
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ccccacgcg tccgcccacg cgtccggcca tttttcttgc ggaaagcggtt cgatagaaaa 120
atgccaagag ttgtttggc gcctgttta tactcggttgg tacatatata aattatgaat 180
aaagaaaaatc tccaaatagc gcaatttgcg agactcacaa cagagcaaat gcttaatctg 240
gtgaaagaac cttctagggg tttgtactac acagtcgaac acttgaggaa acganggata 300
cctcgtctgg ttgcgaaca agagaaaactc gacacagtta ttgttaggg ggacgaccc 360
aagatagact gtcagttgt acaggagacg atggaaatgt ttccctgcagc tgcagaaaagg 420
tttgactcga ttat 434
  
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<210> 5084  
 <211> 426  
 <212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-054-Q1-E2-F3  
<400> 5084

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cttaacgatt agtgtggatt tttgttcaa ggtctctta gaagaaagga ctaggattag 120  
tttatacaaaa cgacagcaaa ctttgtatct ttttgttcct gggtaaattt tttatcgcc 180  
agtgggttgt tagcttagaa aagggttgtt tagagctgt gttaccttga gaaggtacca 240  
aatatccact cctcgtacta gtctgttgtt gagggttacg gcgagagagg tgggggaact 300  
tttcacttgt atgttgtgct tggtcgcctc acagtcgaat aggctctgaa cctggtaag 360  
ctatTTTgag tagagagacc gatagtaaaa gagacagtcc cgCACCCtca tggagaaatg 420  
cttcaa 426

<210> 5085  
<211> 219  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F8

<400> 5085

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ccagtgcgtg aggctgtgat tggggcgttt atgcgttaagt tctgctctgg ctgccgaatt 120  
ggcagctgga ggtgcggaaa aactggtgga gacaggatgt gacgaactct gcggggccca 180  
atattgttat tggaaagggg gacgtatcac atccacacc 219

<210> 5086  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-G12

<400> 5086

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tgcaacatat tgcaaggatg tgaaaaattt actgtcccag agttgataat atcaacgtat 120

caaccatctg tcgaacttgt gatggcatg gcacttatct atagagtctc gatactaacc 180  
ttcggttaat agatatcgca gattctaaat ggtattatgc aagtgcagat gaagatacc 240  
ccatgtcaat ctgtacagaa aatcgccaag cagatagttt actagttcg aaacttgact 300  
tcaacatacg ttgttgagtt acgttactct cctcgatttt ccgagattcc ataatggatg 360  
atcgagcgat tggatgtgca tagagacgct gtactccaga ctcataagact cgtaccacta 420  
cgtattcac 429

<210> 5087  
<211> 448  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-H6

<400> 5087

aggtaaccgtt cagggattcc cgggcccggacc cacgcgtcaa gcttcgggct ataaaacttaa 60  
gatgttggtg attatcttg aaatgggtgt agctttccac tccgttaatta ttggtctgaa 120  
tcttggaaata ggcacaggat cgacattccg tacgttggttt gctgctctcg tatttcatca 180  
attcttgaa ggatttgctg gcggtactac tgtttctgaa gcccagtttgcacttggat 240

cactatagta atggtaacgtt gctagtcgtt ggagggtcga atcggtatat ctattggat 300  
tggtaattgca cacacttatac aggaaaaactc ctcggcatct ttgttaacga gaggcatttt 360  
ggatgccatc tccggtgaa ttttaatata cacaggattt gttggatgttg tgacttattt 420  
gtttacgcgc aactcgaact ttttaaga 448

<210> 5088  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-H7

<400> 5088

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tccggccacg cgtccggaca aagcctaatac cgaaacaagg catttctcag atgaagtggaa 120  
gttttggatgg aaagtatttg gcttcttgta atgaaaacac tccgcgtc ctctggattt 180

ggaatgttct taaaatggag gttgaaggcag ttttgatatg tcagacaact attaagacaa 240  
tacagtggaa tccatattgc ttacaacgtg cgtgtgtgac aggttccgaa tatctatTTT 300  
tatggaattc tcaaggtgct gtcagtgttc cattaccctt tcctgagttt tatccgcagt 360  
attgtacttg gccttgcaa gagaaaggac cactttgct tgctgacaag agccaattct 420  
gcctcgccat ggaagaa 437

<210> 5089

<211> 440

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-H9

<400> 5089

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cgatgcagcc catgtacagt agcagagaaa ggtatccata ttatgacggt gaagtatATG 120  
atgacacggg tgggtttccc ccggaaacga ggccaaagg aagacgtgtc atagtagaag 180  
agccagaaga gtacggaatg ccgcaggGGG acagagatga tagcgaagat gacgagcaca 240  
ttgggtgttg gagaagaaga gagcagcaca gcatgcagcc ttggaaaccag tcacTTTG 300  
aacattttga cagacttttc gaaaatccct ttctgcaat ggagagagga ggattcggtg 360  
gattatttgg taacttggaa cagtccttaa gaagactgga ggaagacttt gccaaaggTG 420  
ggggaaatgg aagtgtctat 440

<210> 5090

<211> 361

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-A1

<400> 5090

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cgcgtaaca acaacaggaa attcattgtat ggacaaacct caagtggatc atcccacgtt 120  
ggtaaagata gacttgtctc aaggagctt taaagtactc caagactgtg acagagatt 180  
agaatgtat cataatacca agttcagtt ggaacgtaat cagtaggtc cttttcacc 240

tgggtttgg accaaagaaa atgttctgct cctccaattg gagctcgtgt caggtgtatt 300  
cataaggac aatctctaac ttttctacaa caaacgtgaa gaacatttgt ttgcgaattt 360  
a 361

<210> 5091  
<211> 237  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-A5  
<400> 5091

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gagagcaatt gcagcaacag cgcttcttga agaattttct tggtgcgttt gacgtttgc 120  
caaatggcct tttttagtga agttttgtta cgaacaagaa tagcaccgag ttggcagaga 180  
aaaagacatt gtttctcctg tcgttcacat cataaagcca aatggtatac gtttcat 237

<210> 5092  
<211> 321  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-A6

<400> 5092

attccgggc cgaccacgc gtcagctggc cttgcaactg ggagttacg ggtctgccta 60  
ttactgcaga taactggatt cccaggata aggtggaa cataaagttt tccaagggtt 120  
cactatagca gacttggcac gctatggaag aagttcagaa aatgggtccc gtaaagtcca 180  
atggcgtttca actaatcc attgtgaata agttggacct tttcaattat tgcaagaatc 240  
caacagcagt gaatcaaatt gaaatgcac cgtaatatgc aagaacagat ttgccccat 300  
tttggtagag tcctggatt c 321

<210> 5093  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-A7

<400> 5093

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tcgacactac gagcaattca gtgagaatgg cgacgagtag tttgttgc当地 aacaactcca 120  
acgcccaccac tacaaagcca gttgttgc当地 agtggcgga cgaagacgac tcgtcaaaca 180  
acaacaagtt accacctcgt gaggaatggt acgatgagga aggtttgaag cacgttgg 240  
aataccattt caacgatgac aacaaactgg gaataccaca aaagtatttc gagtaaagaa 300  
acagactaga caagtttagca agacggttgc agaaagaagg cactggaaaa agtttggcca 360  
acggtaaaaaa accacttcct gaaccggaac ccgggtcac tgcagtgagt ctgc当地gaca 420  
tttccatcga atacaaacat 440

<210> 5094  
<211> 308  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B10  
<400> 5094

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aatggcagtt aggcaatgtt tgcttggg catatgtctt tcggctctgt taggttcaac 120  
tttggctgct tctggc当地aa cgtctattt ctcgttgc当地t cagagtaaaa cagactatac 180  
tttacagtg caaagcatag agctggctaa tctaacagac gtataacaaca gcagtgtatt 240  
gggctttacc tttcttgctt ccaatgacac tgcttggaaa caatcaagag ccaatgtcac 300  
tggc当地 308

<210> 5095  
<211> 435  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B11  
<400> 5095

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aggatgcaag tcacctt当地aa cttgttgc当地 actgggttacc atcctgaagt ggttatatgt 120

agcataaaaca atctattcgt agactggaat gatgatgatg atgatgatga catttcacca 180  
agcacccctac caaatagtct ttaccgaaat gaatatttct tacagatccc ctttggcag 240  
accggagaat gttatcaact ttctctatcc aaagttagct ttgtgttca aaagtttgg 300  
gtttctgaac caagcattct actccgcata gaaagccccaaaacgatat aagacaacac 360  
ttgctacgag tgtcttcttc cattagtgaa atggaaacag aatcactcgt atatctccaa 420  
tccattcaag atgag 435

<210> 5096  
<211> 255  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B2

<400> 5096

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gttggggag tcattccata tacagactat gactttctga gaaatattgg agtcaaagta 120  
atttgtggac ctggaactcg cattccagat gcagctatgc aagtattgaa agccattgaa 180  
gaagaaccaa ccaacgggtgc aagtaatgggt gtggaaacaaa catcgtagta taaattataaa 240

gaaaattatt tcgtt 255

<210> 5097  
<211> 452  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-B4

<400> 5097

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tggaaaggaga aacgagtgtt acactgtcca atcctccaaac tcaacgaaac aacaataact 120  
gttaaaattt cattaactaa caattaggac ggaagaaccc aataatcctt aacaaaataa 180  
ggtaaggaa ggaaaaaaa tcataaaagta aaggaagtgg ggtaagagaa taaagacact 240  
gcattgangat aaggaatcta actgagtaag gaaaataagc ttaagctgttggctgggg 300

aagtaaagcc taagaanaga gtaaattagg caagcanagg catgagagaa gtataatagc 360  
agaagcatgc ttgaagaaaa agaaagagat ttccagaaag gaagaaaagt cagctataga 420  
gaacaagtga aggagaactc aaaaagagga ga 452

<210> 5098  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B5

<400> 5098

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taagaaacaa caacattcta gtagcaatttca caacaatact gctagtcattc cacaacaact 180  
ttcaacgcatttacaacta gtaatcatga ttggagtcg aatcggtttt cggtggaaag 240  
agaattgccg tcattctctg gtcagccaaac ttgtactact ccaatgtata tgacacagga 300  
aaccaacaga acaagaaagg aaccagaaaa tgtacaaaac tttgttcatt ggacaaaaga 360  
aataactcct aacaatttgtt cctcctccca atttacaatt tccaacatta caaccacaag 420

aagaagaaga agaatggaga 440

<210> 5099  
<211> 240  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B6

<400> 5099

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gtaataatag ggagtatggg aataatggga atagaataca gtagcgtata tgaatcgaag 120  
gaggagataa taagggagag tagtatgagt agatatggag aaataagtag tgtaatggga 180  
gtggaaataa caagtttata cagtataagg atgataaaga gggtaatagt aagtgaagga 240

<210> 5100  
<211> 298  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-055-Q1-E1-B8  
<400> 5100

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tctccgcacc aggttctgga actgttacta tatctggctt tggatcc ggtccatttg 120  
gtttggcaat gtatggcaat ttccttctt caggagcatc acaacgattt ctttgcac 180  
aagcaagaaa gacagccgca aatatttct aatacaaagg atgacagtgt ccataacctc 240  
aaaaataaaa tgagtacatg acagcgacaa agaacgctgt atgcaggcga tagataaa 298

<210> 5101  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium  
<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-B9  
<400> 5101

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gcagcaaacc agagaggaaa gcgttaaagc atgaaagaaa agaaatccga aaaaagaagag 120  
aaaaaggtaa gaaagaggac cgaatcaagg taagaggtag aggagcaaga agagaagaga 180  
gaatgctggg tggagtagcg aaacaagaga agggaaagtaa aaggtaaagaa agaggaaagg 240  
tttacgagag aaggaagtag aaagaagaga gtgttaaggcg gcgtcataat agaaatccga 300  
aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta ctgaangacg 360  
acacaggtac tcgaggagaa aggagaccca aattaagggtg agagaatgga cgtat 414

<210> 5102  
<211> 375  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-055-Q1-E1-C1  
<400> 5102

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gatattcggt taaaggtcaa aggtggtgga cacaccaacc aaatctatgc catccgccaa 120

gctattgcaa aaggactagt atcgtattat cagaaatacg tcgatgaagc gttgaaaagg 180  
gaactcaaag atacgttgat ttcttacgat agaaccttgt tggtagcaga tcccagaaga 240  
tgtgaaccta aaaagtttg aggaagagga gccagagcac gcttcaaaa gtcctatcgt 300  
taagtttgtg attgggtaca cccaggaaca atggggaggag tcctttata aagaaaattc 360  
ggtgccaatc taaaa 375

<210> 5103  
<211> 372  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-055-Q1-E1-C12  
  
<400> 5103

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acaatattgt caatggcaga ctttgcata acaggaaaaa ctaaggctac tatcgcaaaa 120  
agtctcattt agaaatacta caagtcttt ttaatgatt tggtcgagag aaacaagaga 180  
aagaacgaga ttgaaagcaa gctagcagca atgaagttga gtgagggtga aaggaagaaa 240  
tacagacagg agttgtgaa tagagaattt cggtttctga gagaaacgca caagagaatg 300  
actgaagacc aatttgaaac cggtgacctc aatggaaagg gtgccttgg taaaattccot 360  
ccgggtctaa aa 372

<210> 5104  
<211> 298  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-055-Q1-E1-C6  
  
<400> 5104

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gtcaccaaaag cgacaataga aagtctcaag aagactccta ccgaaaagtc aaggcttaca 120  
ttttctggac aacttgaaga agtttatcga aggaatttaa agatattcaa cgagccgggt 180  
gacagtgttggcacttca gtttatgaaa aattaatatc aaaacagtaa tagtgtgatt 240  
gtgtggagc ttattgtct gcttggatc taacctaaat agttgttgg 298

<210> 5105  
<211> 239  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D12

<400> 5105

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tagaagaaga gaagaccaag ggctgggtgt ttttatctag tgctatgg atacaaccc 120  
tggaaagaat tgaaatatgg agatattgtg ggaactggta tagctagagt attgttgtga 180  
tagcgtgttg tatccgact cgaacaactt tacatggcaa taaaagcagt tggtcaagg 239

<210> 5106  
<211> 256  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D2

<400> 5106

gggccgagcc acgcgtcaga aacatatcag ttgcagccat tggcgaaagt tagtgaagtg 60  
cgacatgatc tgaagccagc taggaaagaa actgaaaaat attaaaagg taaaagttt 120  
gataaacccct tgaatttcat cacgaactcg tcgataaaact tccaatgctt cttcttctgt 180  
tgagcagttc tttgcaagaa gaggaggatc ttcaaagcct atcgaataat aaaagaaaaag 240  
taataaaaatt gtagcc 256

<210> 5107  
<211> 438  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-D3

<400> 5107

acgcgtcagg tctatgtcgc ctgcatttga ttcaagaaag tgttcctgaa gactatgcc 60  
aacaaacaga acaaggctgg aggcagcata tcttcatgcc catcaaagtt gttttggct 120

atgctccgga aattccttt tgaagacttt ttggctcatt caatttcgga taatacattt 180  
tgataagcga ccagttggtt ggaaggctga gatggttgtt tccatgttaa ataaagcgca 240  
acaacaaggt tgagaaaaca aatggctgca attccttagga tgtctactgt aaacgaacca 300  
gtttttgtct tacatattcc gcccatcacg gaacccaagg ccgaaccgac attntgcaaa 360  
gccgattaag aattttttagg aaaaccctaa cagttccgtt ccaatgcaga aatgaacaag 420  
tgcataacaag ttattcca 438

<210> 5108  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-055-Q1-E1-D4  
  
<400> 5108  
  
acgcgtcagc ccaagcgtcc gcggacgcgt gggccatgt ttctgaccag aagcgaatat 60  
gatagaggag taaatacttt ctcgccagaa ggaagactat ttcaagttga atatgcaatg 120  
gaagcgatca agcttggttc aacagcggtta ggtatacAAA cagctgaagg tgttagtactc 180  
gcggtgaaaa aacgtcttcc ttctacgctg ttggagccta atagtgtgga aaaacttgtt 240

gaaatcgatg aacacgtggg ttgcgcaatg agtggcttaa ttgccatgc tagaactatg 300  
atagaacatg cacgagtaga agctaaaaat catcgattta ctttgacga gccaatgcca 360  
gtagaaagct tgacgcaagc aacttggac ttggacttc gtttcgggaa aggtgtggaa 420  
gacgatgacg aaagggaaag 439

<210> 5109  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-D5  
  
<400> 5109  
  
attccccggc cgacccacgc gtcaagtcaa ctgttagttt gctctgttga taacctgaaa 60  
gacttcttgg gtcagcaagt ttatgaacaa ctccagaaag tataactcgga taatgaaagc 120  
gttttgatga agttggatcc tctcgcaag ttgttggaa gaaatcttga acgattatgg 180

aggagcgatg ttccctgtggt gcccgaacct tcccagatgg atattgttcc caccagaact	240
gatacagacg agatgcaagt aacagagcgt aaaggagttg tctcagtgcg acaaggccag	300
tttgatttgc tggagttctt gaaaacatat tgtaaattga cagagtctga agcaagagaa	360
tcttagttatc gactaagtcc aatttggaaaga ccaggatttg gaaggatttan actcgtactt	420
attagaagta ctccggaaatca aaga	444

<210> 5110  
<211> 377  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D7

<400> 5110

gaattccggg ccgacccacg cgtcagattc tctctttca cttgaggaa attgtttgt 60  
atttggcaat gtttcgacgg ttactgaagt acttgactgc aaatattctc gcaagacatt 120  
gttcaaagag tgccgaagtg acgttaaaag ttgaaaggcc tcagtttaac ttttcttga 180  
gcatcaatgg gagaataaac ttgtatgctg actctgtttg tgtggaaact tggcaaatga 240  
atcttttgtt gttggagaaa agaagaagaa aaatttgttt tgaattgtac agtatgccgt 300

caaagaacgt tcgtaacaac ttgcgtcatt tctcgagca agttggttca gggatgccgt 360  
caaqatttgc cactgga 377

<210> 5111  
<211> 346  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D9

<400> 5111

cccacgcgtc agccgcagta gaaaatacat gggatatcc aaaggcatcc aaggtaacca 60  
aggaacttcc tggaaaaaac ttggttttc cccggtaag gggaaaatta cgtttggcca 120  
acggaccaaa gaccctccag aacgggtgga tgcattttt ggcaaagcag aataccatca 180  
acctccaact aatgaacaag ccgatgcctg aatgaaactt tttgaatttt ggttaattaaa 240  
attttgttqaa ttttgttqaa ttgtcccggttcccttgg aattcaactc 300

gtacacacac acatacatat atatatgaat gaaaaatgct gcaagg

346

<210> 5112

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E10

<400> 5112

ccggcgttga cccacgcgtc agcagacgacg tggcgacg cttggaaaga ggaggaggag 60

gattggtgga gatctgagga gacaagagat ggatttacg actgctcgag tcagtgttgg 120

ttttgtatct ctttcttag agcctacgac atggacaagt ggatcatcca agctatttcg 180

taaaaatgct agtcgttac agtttattcc ccaaagaacg ttgtgtcctt gttcgactc 240

tcgtcactct agatata tagta aacacttcaa gactgtttt gaagccaaac ttcgtgttagc 300

tgttagttgga ggtggcctg gtggttttc tgctgccag acactggcaa aggctggaaat 360

agaaacgtac attttgaaa ggaagtggga caatgcaaag ctttgtggag gtgccattcc 420

t 421

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<210> 5113

<211> 438

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-E12

<400> 5113

accggtcagg aattccccggc tggccccacg cgtagcatg aagtttgga aagattttt 60

ggctggtggc ttccctggag gagaagctt tttgaaggag gtgatagaga gtaactttca 120

aaagccagtt ccaggactcg atactagtgg agtaacggga caagggaaag aaaagaaagc 180

agttggcaac cgaacacacgc agcctgccaa agtttctcg ggaaaagact ccaaccctcc 240

ttcttccaat aatggcactg gcaacttggc aaggtgtgg caaggtcctc caataacaaa 300

accggtaaa aggagaagtc gtttggaaat cgtaccagag gaatagacaa taacttactt 360

agttggtatt gtgtacctgt tggcttctcc tcgtattggg ttggaaattc caatanaaca 420

ccaacatTTT ttctttcc

438

<210> 5114

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-E2

<400> 5114

acgcgtcagc ccaagcgtcc gcaacgactt tgtgaaaaga ttggattttc tggatgtt 60

cattatTTT cgacgtctg caagttcgag gcaaagtgt acactcttat ggaacaacgt 120

tctttgccct tgaagttggg tttcctaagt ggaagtgtta tggcagaagc catcattccg 180

ggtattatacg aaaagaaact ggtggatcct tcttctgtta ctgtctatga cgttagtttag 240

tctcgctgg atcnTTTca gaaaatgggta gtanggacct gtaaaaaacag ttttgagata 300

ttgcatgctg acgtcatcgt ttttagcagta aagcctgatg tagtctctga agctctcaag 360

tcccataaaag acggatggan nacagaaaaa cacttctag tttccatttg cgcaggagt 420

tcgattgggaa caatag 436

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<210> 5115

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-E3

<400> 5115

cacgcgtcag cgaaagcgtg ggaaagtgtaa gaaagagtct gtaaagaggc tttttttcg 60

tggttcgatg ggtggattgt acaatatTTT ttgacaatga aaaaaaatat tgtacatcta 120

ctgaaatgca agaacatgag gaagaaagag gcaaatacgg gaaagcagta aaagaagaaa 180

gagaaaggaa aaaactgagt atcaggaaga aaagagggag tagatgagga aagaaagata 240

aggaagtaag agtaagagaa ggagtaatgt gaatgaaagc acgaaagtat ttgaagaaga 300

gagtgtaaag cgcgtacctt ttgcataatg tcncagcgg tgaaagaggg aagaaaaag 360

aaggaaaaagg aagtaccagg gtaagaccccg aagcttagttt atcttatgct gtccaaaggcga 420

agtaaggctg aaccagtatc tgt 443

<210> 5116  
<211> 436  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-055-Q1-E1-E4  
  
<400> 5116  
  
cacgcgtcag gaagattgat agatatcttc attcattaca gacgggacga gttgctgcc 60  
acaaagctt agaacaatat gtggaacgtc gttgtagctt atccaaacta gtaagctcg 120  
tggaaatgtt cttctggag cgaagtcatc aagaagggtc caaaatggc accatcttct 180  
ccccaaatgc acaatcctt gcaaaggata ttttatcc caaagataact acttaggtcg 240  
caaggtaag aatggctaga tgctgtttt caagattttt cattttttgc tcgtgacgccc 300  
cgacgggttt taggtgaacg tgtacaagca tacgaatctt ataaaaagggg cctatcagaa 360  
cacaatgaaa ggatgccaac aacgggagaa tggtcatagt tccacccca cgtcctcgca 420  
tcagactqaa aaccccc 436

<210> 5117  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-055-Q1-E1-E5  
  
<400> 5117  
  
gaccacgcg tcagcccacg cgtccgtccc tttcaccaa tcctcgtgag cattgtttt 60  
tgctcggtcg ttttcaatgg cctttgttat ttttgtttta caaagctcaa aacttgtgtc 120  
gtcgagagct caaaccagtg ttcaaacata tcagttatct agtaagaaca cagttcgggt 180  
gtttaccggg aaggtaacttg tgggaggac ttgtcgaagg ctttcaaaat ggttgttagc 240  
cagtgcgtac agtgaagca ctgtaaacca atgcgtttct gaagaagaaa aaatagtcaa 300  
agaagtgact gaagtaattt ctggagttga tatcaacgtt agattgactt cgctaggcgg 360  
tcgaagacgc agaatctcggttga tatcgaagct ccagtgaaac gcgtctggga 420  
agttatgacc gactatg 437

<210> 5118  
 <211> 371  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> unsure at all n locations  
 <223> Clone ID: LIB190-055-Q1-E1-E7  
 <400> 5118

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ggtaacggtc aggaattccc gggccgaccc acgcgtcaaa aatttcattc atcgttgctc 60
attcttggc cagatatgac aggtcctggt aaaagtggta aagggttaag aaaaggaagt 120
tcaaagcgtc atcgcaaagt cttgcgagac aatatccaag gaataaccaa accagctatc 180
cgtcgttgg cgagaagagg tggagtggaaa cgaatctcag gacttatcta tgaagaaaca 240
cgaaatgtcc ttctgtttt ctggaaagt gttattcgtg atgcagttac ttatacggag 300
catgctcgtc gcaagacggt aactgctatg gatgtcgtat atgctctgan acgtcaaggc 360
cggcaccttt a 371
  
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<210> 5119  
 <211> 436  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-055-Q1-E1-E9  
 <400> 5119

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cccggttggc cccacgcgtc aggagaaaag aaaaagaaat gagttggagta gtacaaggag 60
cgaagatgat gggagcagga atggcaacga taggttagc aagagtacga gcaggagtgg 120
aatatgtatt tggaaatggc gtgtatgtc atgcaaggaa cccagtattt aagcagcagt 180
tatgttggata cacgatatta gggtttgcgt taacagaggc agtaggactg tttgcattga 240
tgtatgtttttt ttttggaaacg gtttcatatgt ataggagaaa caagaagtag aagagaaata 300
caagagacag aagaggagtt atgagagaaa agatggaaat aatagaagtg gtaagtggag 360
taataatgaa tcataatgaaa gaaggaatgg agaatataac gaacgattac atgaacgacg 420
agataatagg agaaaat 436
  
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<210> 5120  
 <211> 438

<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-055-Q1-E1-F1  
<400> 5120

cacgcgtcag cccaagcgtc cgccggacgacg tggcgacga tttttcatc gccgtaagag 60  
cgccgccacaa tgccgactcg aaagctgtac gtccgtaatg tttccaagca tgctactaag 120  
agagacttgg aagacctgtt ttccaaatat ggaagagtaa gggatgttcg gttgttaact 180  
gactaagctt ttgttgagat gggcgacgaa agagacgccc aagacgctcg ctattaactg 240  
gaagggaaga gaatggaaag gtaacgttta aaaagtttag tttgaaaaaaa acgagagagc 300  
tcccccaagg caaccaaagt gctaacaact gccggttac tgggtcactt tgctagggag 360  
tgtcccaatg gttactggag taaccgttgc taccgctgac gggaaaaggg gcatacacaa 420  
aaggattgtt cggctcct 438

<210> 5121  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-055-Q1-E1-F10

<400> 5121

ccacgcgtca gcagacgcgt gggcgaaat atttcaatg agaaacgagc cgcttggaaag 60  
gctttttct cagaagttt cactgagaga caagcacctt ttctatcgta tttccttag 120  
gtactctact acctcccatc ataaactgca gcacgaacga gttgtttat tgcacggctt 180  
tctagtttt ccgatatcg gtattattca agtatccagc aatatgttt tacagtttgc 240  
gaaattgtaa ctcattttt ttatttatac agttatcacc ttttagctact ttactaaaaa 300  
gaaagggttt ttcatgttcg aactttggat acccttcaag agacgacttt atctcggttc 360  
atgcccataa ctgggtcgat gccttgaata gtttagcgat aagagacacc tgcaagttt 420  
ac 422

<210> 5122  
<211> 353  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-F2

<400> 5122

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tttattgaaa agtgctatcc tcagtatgca acaacggaga aatgttaga gtatgat 120  
gttccatatg ccacttctac accttatcca tcggtatctc caagttatac tccttcagca 180  
tatcaaacaa cttctgctta ttaaagagcc gaagactgga tagattttg aagtgtctcg 240  
tgttcaaaga aaacatgaga cataaaaaaa agtaaaggat ttggttttat gtataaaaaaa 300  
aaaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaa acaacacaaa accaccacac ccc 353

<210> 5123  
<211> 424  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-F3

<400> 5123

gcgtcagctt aacggcttg gcacgttaact tttccaatgt ctgtctctcg aggagtggc 60  
tgagaggggg atgttacga aatgtgaaag tttcaacca caaacgacct gcaagggtgt 120  
tatctacaa aatgagaaga ggcgaccatg aaaggagaga acttagtcgt cctatgcgta 180  
cgcttgcattc cgcttcgat gaacttttag ctggcgca ggatccctgg tccatgtttc 240  
gctctccatg gagtctgtct cccaaaaagt atggcagtag acacgtggat gcctcggtt 300  
gacttgggg agaaggaaga tggctttat gcatacgtgg aactgccacg gcctagcccc 360  
aaagacctta aaggtcgaat ttagaggaga cgttggtaact atttctggag aaaagaagga 420  
tgaa 424

<210> 5124  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-F4

<400> 5124

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gaaaaaaactg caacactttt tagcactagt ggatacgaaa ccctcaatgt ctatagtatt 120  
tttggcgttt aatggatgga tactttgtt tttaatagt tttggtcttt cctggatact 180  
ccttgccct ttcagaaaac tagacctcat ccaacgttct gattggcgtt cacgagtcgt 240  
ttccaacttc aacgcttttgg tggctgttt actgtttgca aagtttgtt ttggagaaga 300  
actgcttat cggacgggag tctttccta cagcgcagct tggtgtggcc tctggaaatt 360  
aattcttggaa tactttttt atgatagttt gttgattttt ttggatattt aagttcacga 420  
naccataaat attcaaaccat tta 443

<210> 5125  
<211> 450  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-F6

<400> 5125

aattcccgaa ccgacccacg cgtcagccca cgcgtccggaa tgagcgggaa agccttggcg 60  
gagaagctta aaaaccttcc ttggaaagac caatttcaag cagagtatgt ctggtagac 120  
ggtaattttc acccaagatc caagggaaaga actttaaatc tgaggactt cgggccccc 180  
cctcacaatgg cccctgcttc tgcatttcct gagtggaaact atgacggctc cagtaactgg 240  
caggctgaag gccacttttc agaagtcata ataaaggccct gtgctgttta tcgtgatcct 300  
tttcgtggcg gcaataacgt actcgtcctt tgtgacacat actggcccgaa tggtaactcct 360  
catcctacca atactcgaca tcattgtcca gaagtgtatgg aagcagcaaa ggatctggag 420  
ccttggtttgg gagtggaaaca agaataacttt 450

<210> 5126  
<211> 352  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-G10

<400> 5126

cctggaataac atccaaacatt ttattcaaga taaaaaaccc aacttgctgc cattcgtctt 60

ggctaaacga atcaaagctt gtcgtagctt gggatccatc cccacatact tacagaactc 120  
cgtgatcaact tgtgaatgca gagcaatgc tttcctcgat ccctgttaa acctatcctt 180  
gcccaagacc catcggtca cgtatacat aggagtgaaa ggaccaaagt cgaaacctt 240  
tcccattgtaa acactcaatc ctatgtttctt aactctgctg tcactaaatg aagcaaatcg 300  
attgcttctc agtctatagg agcaacaatt tgaaacaaaa agagaggaac ca 352

<210> 5127

<211> 207

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-G12

<400> 5127

agtaaataag atgcatggaa caaaaacaaa cggaaaaaat catagcatca acacatacgg 60  
atacttaaac cgtcaaaact aactcattaa gtcacagacg tttcataact acgtcggat 120  
ccttgcgcac tctttctagt ttgcgttgtt ccaatctcg aattacattc gttccattga 180  
tatcagggtcc agttggtaa tcccgct 207

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<210> 5128

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-G2

<400> 5128

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taagatagtt gcaggtctcg atattgacaa gataataagt ttgggttgctc aagtggagag 120  
tcactcagac catccttatg caaatgctat tggtcggtac gcggaaagaaa ctcgaggtt 180  
gcatgttca aagcaagtcc aatctttga agaaataccg ggttgggtg tgcaatcgat 240  
cgtctccaat catgaaatat tcataggaaa cttgaaatgg atcatctcca aatgcggtag 300  
ctcacaagaa cccacanagg attgggttggaa taaggaatat tttagaacagc tacagagtt 360  
gatgaagaac ggaagtactg tcgtggtagc tgccatagac gatactcctt gcattgcatt 420

tcgcgtcgat gatgag 436

<210> 5129  
<211> 365  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-055-Q1-E1-G6  
  
<400> 5129  
  
gacccaagcg tcagggaaa gttagacttc cccaaagttt tatcgcaagt acaagacatc 60  
gttcgacaac gtttcttcgg agacagtaca aacggggct atagtcctgg tgtacaaaaa 120  
accctgtttg acattggtgc gcagattctt atgtcttgc cgctcttgg aaacgttatcc 180  
ctaagtatgc caaacattca ctatttacct gccaaatttag aagtgtttc gaagaatggg 240  
gttcgatttg agaacgatgt ttacattcca acggatgagc ctcatggcac tattaaggca 300  
acgttgtcaa ggtcttgcct tgcaaaattg taaaggtgat tcttgcttt gaaaaaaaaac 360  
aaaaaa 365

<210> 5130  
<211> 455  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-055-Q1-E1-G7  
<400> 5130

aattcccgaa ccgacccacg cgtcagcccc cgcgccgc accaactacc accaaaagta 60  
gcaactgc aa ggaagaacag agtgcctaa agaatagcaa gttgtatga ggagaattgg 120  
tagcaaactc ttgtcttatt ccggcaatga agtaaaactt cggatgtt tttcttctct 180  
aaggagacg agtaaagcga cgggtcttc catccggagt tggcttcgtg atatcaacca 240  
gtggatgaa gacacttact ataaaaaggaa aaggatggat ctttggat attatatgtt 300  
actttgtttt ggagtggat ataccatcaa ttactcccat atcaaacata aagtggagca 360  
taagaatgac gatatcgaaa gccttgtaaa ggtcacccat tggtgttg gtgtggctg 420  
acgcatacgatggatatacgaa gaaggttcc ttctt 455

<210> 5131

<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-H11

<400> 5131

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ctcagcaaca caaaaactgta tccaccacaa ccaagttgca agctttctt ccattacaag 120  
ccttcggacg aacagtggga taaaattttg gaaaaggttt tcaggtactt gtccaacgat 180  
ggaacgctcc aactggagtt gtgtcaagga gtagacaacg cggtgctcct aaagacggaa 240  
ctcaaacttt gtgggtttaa ggacattgtg gtggaagata gttccgtgga gaagaaaaca 300  
gtgtggaccg caaggaaacc caactgtgac tttggtgttt ccatgaatat tggaaactcc 360  
accacagctt ctacgcacag cggtggaaac actaggacca acaatgaaac cgtgcaatta 420  
tggacacagag 429

<210> 5132  
<211> 452  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-055-Q1-E1-H6

<400> 5132

attccgggcc gacccacgac tcaggagaat acgtcgttt aacgaacaag gagaagaaga 60  
agacaaagaa gacgaacaag aagaaatgca aagtgaagag ttgacaagga gttgttcgga 120  
atttcttctt tcgtattctt ccgaaatggt agactgtata acctcattga gcgatgacga 180  
cgaagagaaa gagtcgttcg tggcttctcg acttggacaa aaactggaa agatgctgga 240  
tagttatgcc tcgcattgtt gtggaaaaaa taagactttt ttgtttcgat atgttccgga 300  
cgacacacca acgaaggcatt ggcttatcga caagttcaag ttaccaacga gaaccttacg 360  
ggttaccttg tcaactggag tttgtccaaa aaacgaagaa taagagttt gcataccaaa 420  
acacgctgtc caagtggctt cccgtcttga aa 452

<210> 5133  
<211> 454  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-055-Q1-E1-H7  
<400> 5133

gaagtcccg gcccggcccc acgtcaggta caacacttgc atttcttgc caaaaagtgc 60  
cagaattcga gaaaacgtta agtgacgagg atgaaagatt aggagcacaa attgttggtc 120  
gagccttggaa agcaccgctc gttcaaattt cgacaaacgc tggaaaagaa ggctatgtgg 180  
ttcttaatga ggtacgtaaa aaggaactcg gctggggatg gaatgcggca accgatgagt 240  
acgtcaactt ttatgtatgcc ggaatcgttag atcctgccaa ggttgtttgt tggcggttgg 300  
agaatgcagc gtccattgct tctatggtag taactacggaa agctttggc gttgaaattc 360  
ctgagaagac aaagaatacg tccttcgggt gaaaatggaa tgggagattt tacaggagaa 420  
agctacatgt aaaagttagcg ccatattcta aaat 454

<210> 5134  
<211> 306  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-055-Q1-E1-H8

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<400> 5134

taccggtcta gaattcncgg gcccggcccc gcgtcagggt acaggaagag atggaacgt 60  
tcggtcgctt tttatcaccg aaaacagaat atagagacga tgtgagttt gataaagtgg 120  
atgtgaatat gtggaaagca caacaacgag agcgttgggt ttttggaga gagttttcgg 180  
cacaagagga taggctggaa gacgacccaa aaggaaatga ggangaagac gacaaggacg 240  
atggcgggtga tgtggactat aaaaacttgc aacgacttgt gaaataaaat tttttgggt 300  
gtgcac 306

<210> 5135  
<211> 221  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A10  
<400> 5135

cacgcgtcag atctatTTT ccaaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa 60  
aaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa aaaaaaaaaaaaaaaa 120  
aaaagaaaaaa aaaaaaaaggg gggccgccc aaggatggc aaccccacct acccgtaaa 180  
ggaacgtcaa agccctccaa aagggccacc taactccaaat t 221

<210> 5136  
<211> 71  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A11

<400> 5136

aaaagggtcc aagcttaagt acgcttgcattt gcaacttcattt agctttcaat tagtgtcacc 60  
taacttcattt t 71

<210> 5137  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A2

<400> 5137

aattccggga tcaccacggg cccgagaagg aaggttagctc agtgtattgt tggaggaagt 60  
ggaaagaaaag ctattggagg tgatttagaa ggtggctattt acattgaacc gacgatattc 120  
aaggagata acaagatgag aatattccaa gaagaaatat ttggccagt tctgagtgtc 180  
acgactttcc gtacagaaga agaagccatc caaattgccca acgatacttc gtatggttta 240  
ggtgctggtc tgtggactcg agatattatg aaagcttacgc gcgtatctcg agcaatcaag 300  
gctggcgtg tttgggttaa ctgctatcat gaggatcattt ctcattgcggc gtttgggtgg 360  
tataagaagt cacggtttg tcgtaatgc cacaagttga ctttggagca ctaccaacaa 420  
ttgaacaaca tta 433

<210> 5138  
<211> 228  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A7

<400> 5138

tacccgtctta gaattcccg gcccggccac gcgtccaata gtcccgccat cgtatatact 60  
actgtccaat gctacctcaa gtttagctcc gatcgagtag agcaaggaat aagttttggc 120  
tccaacctgg actttaaata tgcggcaaaa ctgtccgtg gtgcttatat ggtgtttgaa 180  
cgtcgagtgg cagctgagaa aggttatgct tcacgcgttt ttgaccgt 228

<210> 5139

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B10

<400> 5139

ggtcaggaat tacccggccg gcccacgcgt cagattggct taggaatggc tgccgctgca 60  
aaactggctg gtccttctcg tctgatcgct ttggattgta tggattcaag actagatatt 120  
gcgagagagt gtggggcaga catagtattg aatcctctta aaacaaacgt cgtaaaggat 180  
attcaagaac ttacggatgg atatggatgc gatgtttatt tggaagctac tgaaaatcc 240

aagagcgttg aacaaggctct cstatatgatt cgcaagaatg gaagatttgt agagtttagt 300  
gtattcaaaag acaagactgc tgtggattgg acgattattg gagacacaaa ggagttggat 360  
atactaggag cacattgcag tggagataat ggatataaag tagctattga tatgactctc 420  
cgtcgccaaa ttccctgtgga gcgtattg 448

<210> 5140

<211> 450

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B12

<400> 5140

gtcaggaatt accggctcga gccacgcgtc agccccaaagc tccgacaaag tgtcgtttac 60  
aaaagaaaagt atcacatatt ccctcgatt gtgtgaggat gagttgggtt gcaactttaa 120  
aatcttccaa aatagaaggc tcctctgcta ttccagaagg tgaacagcct gacccatata 180

caaagtggga gcagtgttta caagagaaaag ggtcaccaga gtgccaacag tgtcaaggtt 240  
caggacaat accatgtcct gcatgtgaag gaaagggtta ttcgtgatg gaagtttca 300  
atgttaccc tagtaaccag tgtcaagttt gccgtggaca ccgtaaaact ccttgcccaa 360  
cttgtaaaga atacatttat cgggcagtaa aagattttag atataaagtt aaactcaatc 420  
tttacaaatg gaaatattgc ctccagtaac 450

<210> 5141

<211> 388

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B5

<400> 5141

acatgcaagt aggtaaagcg aacgggtgag taaagaggtg tgaaagagtg gaagaacatg 60  
aaagcacaga agaatgtaaag aaatggtag agtaaaaacc ataaaggaag taaaagcggg 120  
aatctgagag gagaaagcc acattgaaac tgagaaaagg tccaaacaag ggagtagatg 180  
aggaaagaaa gatcaaggaa gtaagagtaa gagaaggatg aatgtgaatg aaagcaggaa 240  
agtatttgaa gaagagagtg taaagcgcgt accttttgcataatgtccca gcgagtgaaa 300  
gaggaagcaa aaagaaagaa aaagaagtag ccaggtaaag cccgaagcta gttgatctt 360  
tgctgtccaa gccaagtaag gctgaacc 388

<210> 5142

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C10

<400> 5142

acgcgtcagc ccaagcgtcc gggctgaaaa gacacgcttt gtttggcttg actttattcg 60  
agttcctcgt tgtcgaagag cagcagtcta cgccattctt attatgatcg ttcaacagtt 120  
ttcaggaatc aattctatca attattatat gggaaatgg atgaaggaaa ctggattatc 180  
cgcccagaat gcagtctata ctagtatgtat tggtggtggc acaggattcc tttcaactat 240  
tcctgcaata tatctgatgg accgactggg acgtcgacca ctgttactta ctctcattgg 300

cgagtcgtg gcaggatata ttattttgg ctttcatc cttgcttcca atattcacac 360  
caaggaacgt atctatattt gggggcggtt tcatctatta tctttctgg ggttctgctc 420  
t 421

<210> 5143  
<211> 432  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C11

<400> 5143

acgcgtcaga gaaactcgaa tggtgagaga actgttcaa atggcacgtt ccaagaaagc 60  
ttgtattata tttttgacg aaatcgatgc catcgaggt gctcggttgc atgatggcgc 120  
tggaggagat aatgaagtgc aacgtacaat gtggaaatt gtcaatcaat tggatggatt 180  
cgatgcacgt gaaaacatca aagtgttgc ggcaccaat cgtccagaca ccttagaccc 240  
tgcttgcgt agacctggta gattggatcg aaaaatagaa tttgggttgc cagattaga 300  
aggaagaacg catabtttc gtattcatgc aaaaagtatg aattgtgaac gcggattcg 360  
ctttgaacta-ttggatcgat-tatgtccaa-cacaacaggt-ccagacatac-gaagtgtttg-420

tacagaagct gg 432

<210> 5144  
<211> 358  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C12

<400> 5144

acgcgtcagc ccaagcgtcc gatatttgc aaaaatcgatg tgaacggtcc caacgcac 60  
ccagtttatt cttatattgaa acgtgcctct cataccggcg atattgaatg gaattatgtc 120  
aagttcctgg tgagtccgca aggttaagggtt ttacgttttgc cacctggac agatcccctg 180  
caactgaaac cacatatccg agcttgggtt ggtttactg aataatctat cgtgtgttcc 240  
gtatctcttgc ttatgaaagt cgccgtcattc taaacgtgtt tcttcacgca agacacgact 300  
ggatttcaaa agagataaat aaatatttatt taccattcca aaaaaaaaaa caatacac 358

<210> 5145  
<211> 298  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C6

<400> 5145

aagtttggtt gttttcttgg tagcagttgt acattcaaca tcatcaaatg ccaaagggag 60  
gaaagaaaaga ttcttcaaag aaagaagcca caagtaaacc tgcagcagca gatgctacaa 120  
agacgacaga aaagtctggc ccggaagcca agttgaaggg aactggtgca aagaaacaat 180  
aaaaagttga ctatgcatgt tcctgttatg ttttgtgagt tctgtttgat agtttccagc 240  
tattcttttg gtatgtata aagagaaaat ttttatatt tacaaaaagt acaaaggg 298

<210> 5146  
<211> 428  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C9

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<400> 5146

acgcgtacgg tttagtctac tcacgaaaag tattgcacca gttactaaaa gcattttgtt 60  
atcccacagta aagtataata gtccttgca gctgagtaaa gcagagatat ggagagcttc 120  
ttatccaact ggaaggcagac gttccttgc agaacaagg gcacagcagc agtccaaaga 180  
aggtgaagaa ccaataacgc cttatcaacc tgtgacggag aagctggata aaagagaccc 240  
aaactatcct tggaagtggta gaagtttct tccagaacat acctataaac ccaacctcaa 300  
tatcaatctg gaaaggcatc atacacctt agatttaga gatagagtag ctcggggat 360  
cgtcaagttt ttaagatttt ttgcagatgc cttttttca gaaacgatac ggacaccgcg 420  
ctgttgtg 428

<210> 5147  
<211> 316  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D1

<400> 5147

attcgcggta cgacccacgg gcccgtgtt gtgtaaggca ttcctccaga ctgggacgat 60  
gccatgttgg ccaatttgg tcttcctttt ggcaaattgc tatcttccaa tgtgtttatt 120  
gataagcgta cgtagagaag taaaggattc ggatttgtga gttatgctta tcctgattcg 180  
gcacatatgg caattgttat gttgaatgga atgactttac caaatggcag aacgctaaaa 240  
gtttccttga agaaggataa aaacgaaaat ccaagcgaat aaatgaaaat ttttctttt 300  
gggaaaaaaaaa aagcac 316

<210> 5148  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D10

<400> 5148

acgcgtcagt tcgaacatac attgatgctg tgcatattct gaaaaagaag aaaggccgcc 60  
tctccaactc aacggactgt atggacacca ctatgacta ctatcatatc agttctgaca 120  
cttccgaaaa tgcccttgat tattttgaga gagaaaggat cattcgagag atatcccaag 180  
atcctttttt gtacgacaag ctgagtcgtt ccatagcacc atctatataat ggacatgaag 240  
acttgaagaa aggtcttttgg ttacagcttt ttggaggaac cagcaaagat ttttctatca 300  
gtggaggtgg ccattttcgc agtgcatac atattctct tgcggagat ccaggaacaa 360  
gcataagctt gttcgtcag tatgttcaca ggattgcccc tcgtggtctc tataacttctg 420  
gcagacgct 429

<210> 5149  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D11

<400> 5149

cacgcgtcag attcgaggag agagacagac agatggccaa cgctggtcaa gatggccttg 60  
tgcaagtcaa caaacataga aaagtaaaga gattgcaaga agataatatt ttgaatagag 120

cactatcaca accaggagat gtatttctgt gctttgcaa catccagttg ttggtaatg 180  
cagaaagagc tattatagga aatattactt gtccagaaag tatcgaattt tgctgttat 240  
tagctggaca tatagcggtt tggttcgatg aacatttggaa tgactttcggt ttggaaagcta 300  
tcttgggagc actattgtgt acttggattt gtgagtgaa gcgtttgaa cgagaattgg 360  
gggtacaaga atggaatgaa ttgggaaga tatcttcctt agataacttgg aagcttgc 420  
ttggtaacaag a 431

<210> 5150

<211> 228

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D3

<400> 5150

atccccggat cgacccacgc gcccgaattt gggcattct tactcagggaa agaaacgtta 60  
tgacaccgtg gagaaggaca cagagaagga accaagtata tttgagatac atgatctgtc 120  
caagaaacag agtggcagcc aataagaaga gagtttgtga gtttcaata caatactgtg 180

cttgttgtta taatttcca taaatgattt tacatgtgt tttgttgg

228

<210> 5151

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D7

<400> 5151

acaatattaag gtgagagaat ggacgataag gaactaggca aaaggatatg gtatctgcgg 60  
tagaacatat gaaaagaagca gcacccactg ttttagcaaaa acacagcact ctgcagaaaa 120  
gagaaaaatgt aaagtataga gtgtgcggcc tgccaaatag tagagaagaa atcgatgaaa 180  
gtgaaagcga gtaaaagatg aggtatagag aatggcggtc ctaacggtaa ggatccaaag 240  
gtagcgaagt aaatagacgt ttgaaaggcg tccagttatga aaggagaaac gagttgttagca 300  
ctgtctagtc gtccaaactca gcgaaacagc aataactgtg aaaatgcagt aaactagcag 360  
taggacggaa agacccata attcttgact agatagttt agggaggaga gagaatcatg 420

aagttagagga cgtggggtaa gagatga

447

<210> 5152  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-E10

<400> 5152

cacgcgtcag agcggtggtc ggcttttac gacgacgacg acatggtggt tgcttcctgt 60  
cgaaaccttt ttgtactaga gttgaagaac aaggaaaact tatagtatcc gaaaccgaag 120  
atgatacccg attagatcgt ttcttgagac gccgtattgg tagattgcct cagtctttat 180  
tagaaaaata tatccgaaga ggagttgtaa agatagatgg gcaagtagta aagaaagctg 240  
gggaaagagt tcgttcttct tccgtggtgt atattcctag acaactagaa agcttggagg 300  
aaacaacagg ggacgacaat gtggagagta gtcgcctcca tcagggggat ggcgctatga 360  
tgatggacag aaaggaaaca accttgtcta cccaagtaac aaatagagta cagagttggg 420  
tgctttaca 429

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<210> 5153  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-056-Q1-E1-E11

<400> 5153

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tcgatccgt gttcgtcgac ttttgggtgt ctcttggaaat ggcttccaat cttcaaacag 120  
acggcaccaa cgTTcccact ttAAAatta tcttggtagg agacggtgga gttggtaaaa 180  
caactttgt gaagcgacat ctttctggag aattcgaaaa gaaatatatt gccactgtag 240  
gtgtggaaatg acaccctttt aaatttcata ccaatcgagg ccctatcggtt ttcaacgtgt 300  
gggacactgc tggcaagaa aagttggag gtttggggta tggctactat attcaaggac 360  
agggtgctat tattatgtnt gatgtcactt ctagaatcac ttataagaac gttgccaact 420

ggcatcg

427

<210> 5154  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-056-Q1-E1-E12  
  
<400> 5154  
  
acgcgtcagc ggaaggctgg gttaaagttt gatgctgaga gttttttgtt ccctgtgtcat 60  
agtaattcag gaattggttt gtggagaaca agtttccgtt tatccgaaga aatatataca 120  
acttgcgacg gtggcgattt tcacatgccca ctgcacttt gtctcagtgg aaatgctcac 180  
tggggctt ggatcaatca gttgcagatt gctcggtatg tggcaaatgt tggccacaa 240  
aatgttatTT atattccatg tggcttgctg tatagaaaacg aagaaaaatgt cttgacaatt 300  
atgtattata cagagcatga aagtgcacaa gttgggtttc gaataactcc ttactttgtg 360  
gatagcaaaa cggggaaactg gaaaactcac gacgaactgc agacaacgga tgggtttggaa 420  
ccttcqcaaa c 431

<210> 5155  
<211> 290  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-056-Q1-E1-F1  
  
<400> 5155  
  
attcncggga cgacccacgg gtccgccccac gcgtcagcggt acgcgtggga aagccaaactt 60  
  
atagttttac tccctgaata tagcttgaaa acaatcaata actgttcata ttccctgagta 120  
  
tgtcttcgt ctatccaaaa tgttgcgtg cgaatcttta tgactggaga ttatgcgcctt 180  
  
tctgaaacat ttttagtta tgttggattt ttaaggcatcg ttcgtatctg ataggctatt 240  
  
tctgaaagggt tttcagtagt gtaataaaaca aqaaatqaac taaaacaaqaq 290

<210> 5156  
<211> 450  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-056-Q1-E1-F11

<400> 5156

ggtcaggaat taccgggccc agccacgcgt cagcccaagc gtccggtcag gtatctccaa 60  
atttgtcaa cggttcaag aagtctttg tcaaaggaaat cgaaaggct ttgcccata 120  
ttgcacgcta cgaaagttc tcaggcgtct aatgtgatgt gccgagatgc ccttaacagt 180  
gcgcttgatg aagaacttga acgagacgaa agagttgtt ttattggaga agaagtagga 240  
cagtagccaag ggcctacaa agttactcgt ggcttgatg aaaaatatgg ttcaaggaga 300  
atagttgata ctccatatc cgagatgggt ttcaccgggt tggctgtang agctgcattc 360  
aacggactaa gacctgtttg tgagttatg accttaact ttgcaatgca ggcgatcgac 420  
cagatcatca actcggctgc aaagacatat 450

<210> 5157  
<211> 284  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-056-Q1-E1-F4

<400> 5157

attcnccggat cgaccacgg cgcccgacca cgcgtcagcg ggaaagcagt aaaagaagaa 60  
agagaaaagga aaaaactgag tatcaggaag aaaagaggga gtagatgagg aaagaaaagat 120  
caaggaagta agagtaagag aaggagtaat gtgaatgaaa gcagggaaagt atttgaagaa 180  
gagagtgtaa agcgcgtacc tttgcataa tgtcccagcg agtggaaagag gaagcacaaa 240  
gaaagaagaa gaagtagcca ggtaagaccc gaagctagtt gaat 284

<210> 5158  
<211> 425  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-F6

<400> 5158

agtaccggtc tagaattccc gggccgacac acgcgtccgc ccacgcgtcc gccccacgcgt 60

ccggccaagg caggtttgc tcgaagctgc acacttggga ttgcgtggag gcaagttgta 120  
gcacccccc tagtttctc attactttc gttagtttg gaaaacgggt cgatgttcta 180  
aaacagaaaac gtgtccttta aggcataaaa tgtgcgtact gaggaacaga agctgatacg 240  
ttatgcggca ctgtaaaaag tccaaaatac acatatctt tattgaaacg aatcatatacg 300  
ttttgtgac agcttccgca gtcagtttc taaaggaacg aaagaatgaa aatgtttcgt 360  
aattaaaaatt catgagatat tgatacattt agtaatacga taaaatcaa cttctggtcc 420  
ctgtc 425

<210> 5159  
<211> 452  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-F7

<400> 5159

acggtcgaca attcccggt cgacacacgc gtccgattcg tgattgggtt ctttatctat 60  
tattttcct acaatcctag ttttggAACC ttggcatggg tcgtcaatgg agagttgtt 120  
gagtctcata ccagaaaactt gggaatggca tcctgtgcgt tttggatctt tggaatgca 180  
gccatttcaa cctatacttt tagtagacag atcgaagcgt acggcactgt gggAACATT 240  
ggtgtgtttg cagctattgt gtttgtattt tgggtgatat tcctttgt gtttgtggac 300  
acttccaagt tgaggctgga agatgtaaa gaacgctttg aagggtggaaat gagcgctatc 360  
gtaagaagaa atacgagaga aatgacaaga cacgtgcaac gcatttgg gaaatattt 420  
ggaatggaaat acaagggacc atagcaagac ac 452

<210> 5160  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G10

<400> 5160

acgcgtcagg tgacattctt tggaaattgt tggtgaaata tgacaggaag aggaaaaggt 60  
ggttaaggc ttggaaaagg aggagccaaa cgtcatcgta aagtacttcg agataatatt 120

caaggtatta cgaaacctgc tattcgacgt ttggcaagac gtgggttgtt aaagcgtata 180  
tctggccta tctatgagga gacaaggaac gtgttgagag tgttctgga aagtgttatt 240  
cgtgacgcag taacttacac ggagcacgct cgtagaaaga ctgtcaactgc aatggacgtg 300  
gtttatgctt tgaaacgccca gggtcgtacg ttgtacggtt ttgggttgtt agaggcaaac 360  
aaagacatgg tgaaaaaa caacaccagt tgtgaaagaa acttgggttt cagtctcagt 420  
agacccttcc t 431

<210> 5161  
<211> 424  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G11

<400> 5161

acgcgtcagc gtcacaaccc gtcttagtgc tttgcgactt ccaaaatgtat attatgggtt 60  
tcgttcccccc tgagaagaag gaagccgtca ttaaaggagc ttgcggactt ttgaactttg 120  
cccgtgagaa gaagatccct gtagttcatg tgggggtacg tttagaccg ggacaccctg 180  
aagtttcgaa acgaaaacaag atgctttctc ttgtttcctc cagaggcccc atccttgtgg 240  
aaggtactcc tggaaagtgc cacgtacgag agttgaaacc aattgaaggt gaattcagtg 300  
ttacaaaaag aagagttggg gcacattata ataccgatct tacaaccatt cttagcgctt 360  
tgggcgtac ccacctgatt ttgggaagtg gttctacaag cggagttatt ctgtcgaccg 420  
ttcg 424

<210> 5162  
<211> 252  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G2

<400> 5162

aattcccgga tcgacccacg cctccgcgga cgcgtgagtt tgtggtgct gttggtgatc 60  
gacacgaaag atattatcgt gaaccaaatt catttatata tcattggaga atgagtccca 120  
aaaagggaaac accgcatact cccaaaggag gctatgaaa agctgtactt gatagcattg 180

ttgctctgaa ggagatgaat gggtcctctc cacaggccat cataaaatat gtcaaggctc 240  
acaatccgca gc 252

<210> 5163  
<211> 441  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G3

<400> 5163

attcccgat cgacccacgc gcccgtaatg ggaataatgg gaatgataaa tgtggtaagt 60  
aggtcatata aaagcatgga gtatatggag aggataagag aagagagtag ggtgtatgta 120  
ggaatgagta taataacagg aatgatatgg agtaaagaag tgtgggatc atggggata 180  
aatgatgtaa ggaatataag catgttagta tgctggatat ggttggaaatg aataggagga 240  
gtaaaaggagg agtacagagg aataataagc agtataggaa taataaatat accgataata 300  
aagtactcg tagagtggtg gaataccttg catcagccag tgagtataag ctcatgggaa 360  
ggaagtatag gaagagaaga agtagaagaa atagtgaagg taataataat aggagtaatg 420  
gtgagtatac agaagaacat g 441

<210> 5164  
<211> 308  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G4

<400> 5164

attcccgta cgacccacgg gcccggttc atgttaccag aactcgaaag attatggaca 60  
cacgcacgtgt gtttatgggt gccaaggctt tggaaaatgt attgaatgat gcccggattgc 120  
aacctgaaaa atcaagtttc tattttgtga gtcattccaa cttgaaaaag atcggtctag 180  
gtgaaaacga aatttggatc gacttgcaat aactatcggt tgacagcggt tttctaattgt 240  
ggctcttga gtgtggataa aataccttgtt ttcaccttaa aaaaaagaaaa acagaaaacaa 300  
aagaaaca 308

<210> 5165  
<211> 489  
<212> DNA  
<213> Cyanidium caldarium.

<223> Clone ID: LIB190-056-Q1-E1-G5

<400> 5165

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acagcttgtt ggtgttagtgt tgccatggtt tccaaagaag aacaaaactt ggcaaccacg 120  
tttcagttt aagcacgttt gactcaagcc agtctaataa agaagatctt ggaggccatc 180  
aaagacttgg ttaccgatgc aaacttgac tggcgctg aaggtttac tttgcaggca 240  
atggactcat ctcatgtctc ctgggtttcg attgttcttc acgctcaagg gttcgaaatg 300  
ttccgctgtc aacgagctgt ttctctgggt atcaatctgg cgtcgttaac caaaatatta 360  
aagtgtgcag gaaatgtga cagtataacg ctaagagcag acgacaaggg agataaggcg 420  
gagtttgtgt ttgaaagtca aacgcaagac cgtcttctg agtttgaact gaaactgatg 480  
gacatcgat 489

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<210> 5166  
<211> 464  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G6

<400> 5166

ttcccggtc gaaacacgacg tccagataat gttcgacttc gaatcaaggg aatgaaagag 60  
gaagatatttgc ggtggatttgtattgtgt gacaccgatg ctttggttca aggactacg 120  
ttatgtatgc cacaattat gctttggac tataaaaata ttatgtgc tggatacagt 180  
tgtgtcatgc atgtacatgc agcagtcgag gaatgcacga ttgaaaagtt gctggcacaa 240  
gttgcataccaa aacgaaacca agtgcataccaa aagcgaccaa aattcttaccaccaggatg 300  
gcagcgatcg ctcgcataccaa tggatgcgacccaaatttgc tcttacccaaatggatgttt 360  
ccgcagttgg gtcgatttat tcttcgcgttgcgat gaaacgaaaga cagttgcagt aggaatcatc 420  
ctgaaagtgg ggcgtactaa tacgatagag tagcactctc acac 464

<210> 5167  
<211> 233  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G9

<400> 5167

gtcaggaatt accggccgag ccacgcgtca gcccaaacat ccgggcaata caactggatg 60  
gcagttaatc ttataatatg ggaaattcca gtcacatgtc gcacgaaaca gcactgggtc 120  
atgaacactc gagtcttatca tcaaaggcat ctcgtcgtga cacgagcttc acctgctaca 180  
cgtggacaca cgaatattcc gcactcgat gggacaagtc gccataatgg cca 233

<210> 5168  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-056-Q1-E1-H1

<400> 5168

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cgaaaaagag agagtgtgtg tgtggtagg aaatgcacaa tgtcattgac agcaacgttc 120  
aagtttagtc cacccctgt gcatgtcaaa agagaacaac caatgtacaa tctgatactt 180  
gaatatgcaa gaagaaaagg aatagacaga attgttagaga tgaacggcaa atgggtggata 240  
tatacttagga cacccctccaa tcgaaaggca ctgcgttatt ggtatgacat ggactgcgtg 300  
gtgttgaacc cagtcaagga gttacacacg gccaaagctt atgcgagaag actaacagaa 360  
gcactggaga agagaactat tgtcgaattt cccagacaag atatttgtt acgacgtac 420  
gaccggaga aacacggagt ggc 443

<210> 5169  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-H11

<400> 5169

ccacgcgtca gcgagcagaa gattcaacaa aagtattgct ctcgctatgt tactgaagaa	60
gaagtacaaa gcaaggcagtg catcaagtat gtatctttc agaagatcaa gtacgagtct	120
tgctctgctc aatatgaagt tcaaaaagatc aagcagcaac aatgtactat gacagtctct	180
gaacaataca tacagccccga tacttgctac aagtatgtcc ctgaacaaca attgggtgcct	240
catacttgtt acaagtatta ttctgtaccc aagtttatttgg aaaagtgcta tcctcagtat	300
gcaacaacgg agaaaatgtgt agagtatgag tatgttccat atgccacttc tacaccttat	360
ccatcggtat ctccaagtttta tactcccttca gcatatcaaa caacttctgc ttattaaaga	420
gccgaagact gga	433

<210> 5170  
<211> 300  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-H4

<400> 5170

cacgcgtcag cttaaggata tcattaagcg gaggaaaaga aaccaactgg aattccctta 60  
gtagcgggga gcgaagcggg aagagccac tatgagaatc ctcttttct tttgtaaaaa 120

gaagagatgt atttgaaaaa agacaagaaa tatctgcagc aagaaaagag caaatttcct 180  
ggaatggaat atcatggacg gtgagaatcc cgtgtatctc ttttcttgtt attcaaactg 240  
cgttacgata ttcttgttg tggagtcggg ttgttgttta ttacagcctt aattttgtgg 300

<210> 5171  
<211> 432  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-H6

<400> 5171

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ccaagtacgg tctacaattc ccggggccgac ccacgcgtcc acccacgcgt ccgcctcgct 60  
attgtcaagt tccatacggtt gtgttagaaat ggagtcggag attagaaaatt ggctgcttgc 120  
tataggacaa cttaaggac catacacaga gttgctaaaa atttatgagt tggatagcga 180  
acagttggat gtttgtgaag gtttgtgtc ccacccctttg aagcaacaag aatattacag 240
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aggagaacgt caggaatgag gtattcgcat attagaacga ctttattgcc aacttcattc 300  
tctttgcacc aaagtctta ccgcctcatt cacatcttgg aatacatagt ctgcaaggtc 360  
tcttaggtca ttatctccgt cttccgagga gaaacaacct tgagggacat aaatataaaa 420  
acggattatt ag 432

<210> 5172  
<211> 475  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-H7

<400> 5172

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ggatgttcaa agagactttt gtgaaggagg cagtttgc当地 gttccagggtg ctgaagaaat 120  
aataaaaacct attaataatc ttcgttagcat ttttgatgtg gtagcttta ccaaggattg 180  
gcatccggaa aatcacatat catttgc当地 gaatcatgtc ggtcacaaca tatttgatac 240  
tactgaagat caccacggag tgaagcaggt gctttggc当地 gtacattgtg tccaacactc 300  
caaaggagca gagtttcatc cactttatc tcataaagat agtgacatac tgattcacaa 360

aggagttgat ccaaataatag actcttattc tgctttctgg gacaacgc当地 aacaaaggca 420  
gacggaacta aagaaaaggc tcgtcgagaa gaatatctca cagttatacg tttgt 475

<210> 5173  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-H9

<400> 5173

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caaaaatcagt tgaactcata tttatatttga caaaaatcagt tgaactcata tttatatttga 120  
cattatttcca ccatcagctg tgaataaagg caaataaact taccctcatg ttggatattt 180  
ataggttatt cgtaaaaagaa aaaagagtaa aaggagact caagtatagc agtgttagagt 240  
actttgagag gaggctgtat atataagttt ttgaggaaga agagccttct aggcagaagg 300

gtgaacacaa ttgttagag attccagact cctagatctt gggtaaagaa gaagagtacg 360  
aaggagactc aagtatacgca gtgtagaata ctggagagg aggctgtata tataagttt 420  
tgaggaaga 429

<210> 5174  
<211> 347  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-057-Q1-E1-A11  
  
<400> 5174  
  
ggttcctctt gagggaaaa ttgtggttgg tcggtaaaaa ccatggtggc agtttcct 60  
tctcgcaagt tgaaaataca atgtggagta ttgaaaagaa cgttgaaaga tatatccgct 120  
tatcaaaagg agtttaccga gatgaacgag caaatacaac gggcaacacc cgatcaacca 180  
tatcagcaat ggcaaaaagt gttggcagaa acggacagaa tggtatcgga ctcgtatatg 240  
acgttatcgg aagcggtaca cagttacaa aagttgcaaa cgcagatgga cactttgcga 300  
ggaaccacac actggaaaca agcctacgca tctgctacaa gaagcac 347

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<210> 5175  
<211> 360  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-057-Q1-E1-A2  
  
<400> 5175  
  
tcaagacatg tttaggattt acagattttag agctccgtct tgatttaatg ggtgggggtt 60  
gcgacgtcta ggtgaagagt tggtagattt gagggtgtct ggtgggggttct ttttagtggta 120  
cgtttaggag cgggatcgag ggaggaggct aggacctcggtt ttatctggca agcgtttaag 180  
cgagcgggggg ggtgagggga aaggagtttggca cgagggagggca caacaggagg gggaggggg 240  
cacatgggggg gttgtggtc ttcttagcgaa gcggatgttttgc gatggccca gcagcagctt 300  
tgcagaaacg aagcgccgca cgagacgcaaa agaaacaacc cccgcggagt tttttttttt 360

<210> 5176  
<211> 431  
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-B12

<400> 5176

gacccacgca taagcatttt ggccgcacaa agaagatgt gtctacaaaa ggccgtctca 60  
atcaaataa gaaaacttcac tttccaaagt aacagtcgaa gaattttct catgaatgt 120  
cgtgggctgg ttggcaacaa aatttgagt atcagcataa ggaacaagat aggtatggg 180  
tgaatagata ccatgcataat cttgtcaaag taaactatct atagatgtgg aggaaactag 240  
agcatactga caatggagag ctcaaggaat agttgcaaca gtcattctat gtcatgtcct 300  
ataaaagagaa atgcgaaatt gtgttagcaac aatcagctgc gtgtttgtg agccaataat 360  
agtattgagc gcacgagaca catgatcccc acatgagcct aaaggcattt cactgcacat 420  
gaggacatgt t 431

<210> 5177

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-B4

<400> 5177

ttcccgagtc gaccCACCCG ttccGCCAcG cgtccGCCCA cgcatCCGAG gtgtCCGCTG 60  
ggataggcat atttatccgg gttatacgt accGCCAAAC tatgacagta tgattggaaa 120  
gcttactgtt tcggggCCCA cgagagacct ggCCATCCGT aggatgaaag gCgcactaga 180  
tgaaatgaac attgcgggtg ttccTTCCAC tattcTTGA CGCAGGGCTA gttgtcagca 240  
gtgagagatt cattgaaggc agggCGGTTG acacAAACTT tcttgagaca gaagacattc 300  
gttCCCAACT ggtggcagcg gtatctactt tattgtAACG aaagaaggag cgtactttc 360  
gcg 363

<210> 5178

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-057-Q1-E1-B7

<400> 5178

accggtcagg cattcccgcc ccgacgcacg cgtcaagatg gaggcaagga agtgacgcag 60  
tagatcaggg agtaaacat gcaagttagt acagcgaacg ggtgagtgga gaggtgtcaa 120  
agagtggag aacatgatgg cacagaagaa ggtaagaaat ggggagagta aaaggcatag 180  
cgaaaagtaa aagcggaat ctgagaggag gaaagccaca ttggagcgg aaaaacggcc 240  
aaggaggag aagtcaaggag tggggaaaga gtcggaaggt acagggagag tatgaccgag 300  
taatgaagag tggagtaaac aggaaaggag ctgaaaggag ggaatgaacg gaagtttaggg 360  
ganaaaacacg tgccagcagc aacggtaaaa cgtgttagc aagcgtagaa cggaagaact 420  
gggtgt 426

<210> 5179  
<211> 388  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-057-Q1-E1-C4  
  
<400> 5179

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atccccgagc cgacccacaç gtccaattca atccatttcg attgagccgt tttgcgattt 60  
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ccgcttgttt cgagggacaa gtgttgctg ctaagaaaag cgaagctaag gtctccagcg 180  
ccacgtctcc aacgccagtt gctgaaagca acaatgagga gggcttctca gactagcaga 240  
gaactcggcg ctgacaattt ggagaagacg ttggatggat ggagagctgc agtagttatg 300  
tttatcttt catggggtaa tgatttaag gatatggagc cgcattttca ggggcttgca 360  
gaatctgcct ctaatgaagt tagcgttg 388

<210> 5180  
<211> 432  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-057-Q1-E1-C9  
  
<400> 5180

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gtctagcgag tctttcaagt cgttttagta ctggaaaca gggttacaag attgtaactg 120  
ttgcaaataa ttttgaacga gaaagaggac tgcgactggt gagttccttc caaagtgcgc 180  
ggcagtggac ttcgttgcaa ggtttgttat gtcgctatag aagtgacagc gttgtggagg 240  
gagggaaaaa gcaaaaaggga gtcgctactg aaagaagtcc tgtttctaca gccattccca 300  
tgggttatgc cgatgaatat ttccatcacg tgcacgttg gcgtccagga gatccaagta 360  
aacgaacggt agtctatttgc tggttggaa ctgccaagtt tatcaactgct tgtattgctc 420  
gagtaataat cc 432

<210> 5181  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-D9

<400> 5181

gaccacacgta taagagagga attggaaggc gattgcttgc cgaaagagcc tacacacaca 60  
aaagtgtttt gtcgtatagg taaccaattc ttcttgttcc atgtccaaac tgcaaacagc 120  
taccgttcgt tctgcagtag cagagatttt aaaagagtca caagagaaga aacgcaactt 180  
tgtggagacc gtgaaactcc agataggact caagaactac gataccaaaa aggataagcg 240  
tttttagtggt tccattaagc tgccatataat tccaaaacctt aaaatacaag ttgcagtatt 300  
aggagacgca attcacgtac aacaaggcaca ggaacttggc atcgatgctt atgacgtgga 360  
agccttgaaa aagtttaaca gacagaagaa gcccatcaaa aagttcgcaa agaaatatga 420  
cgctttctt 429

<210> 5182  
<211> 409  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-F12

<400> 5182

gaccctagcg taaggagagt gtgttgtga gttgtgtgt gtattgtgt tttacgtctt 60  
tgtgagtgac cactcgtagg agtgtgatga atcctcacaa agatgataga cgacagtagg 120

acgatgttgt tttggataa aacacccacg ggacacacac acaaaccccc accgcacgac 180  
aacaacacac gcaaaacacc accccacacc aaccacacaa accacacaca caaacagggc 240  
ggccccctta aaggatccac cctccccctg ccgtccatgc aacctcacac ccctcccaca 300  
gggtccccca agttcaactc acgggccgtc ctttcacacc cccctcaccg ggcacacccc 360  
ggcggtcccc aacttaaacc ccctgccgga aaacccccc ttccccca 409

<210> 5183

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-F4

<400> 5183

cgaccaggc gtccgcgtt tttttttt cggtggcca cgcgttagag aaagcaaagc 60  
tggcaagtt tccgcgactc aaagagagtg gcttctaga ggtggaaaat tttttcagg 120  
aacttgcgc ttttcttg gcttctagag aatccgtgaa agtcgacatc ctacctatga 180  
ccccgtcgag gcaaggaaat atgcacttgg tgtggaaagca tacaatcatg ttggatagtc 240

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ttatattgtat gtccgtttgt atgccttcct ttgtggcgaa cgaaacagta cgtaaggtgc 300  
ccttgagtgg gagaattgca acaggcatgc agtgcgtaca gggcgatcgt gcgaatcgtg 360  
gtgggtttc aacaaaggtg atagaaatgc aaccgtcgtg ttt 403

<210> 5184

<211> 394

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-F7

<400> 5184

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gaggcattcg gcccaaagga tagtcacaag agacgtttcc cttgacgcac ctgcagaaac 120  
agaaacagag aaagtggat ttcgagaaag actccgacaa gtgagggaa atcgttagtgg 180  
cgctacttg ggaaaacgtt aggacggagt aaaaccaaag cgagaggaag aactggacgc 240  
aagaggattg tgctcgtagag atgggcaggt agcaggagga agctggttgg cgtgaggcct 300

ttcaggccag ggtattcgcg gattagggcc ctgaacacta tggagcgaga aggatgggtg 360  
gacatgaacg actttaatat taagatgggg gaaa 394

<210> 5185  
<211> 350  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-057-Q1-E1-G2

<400> 5185

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aggaagtaga agcggaaatc tggacgang aaagccacag tggactgag aagaggtcca 120  
aacggagaa gtcagcagtg gggaaaattg ggcaatgtac aggaaagtat gacgcagtaa 180  
tgatgagtgg agtagacacg gacggaagtg aaaaggacgg aatcggcgg agttagggca 240  
aaaacgcgtg ccagcggcag gcgtaaaacc gtgtgtcgga gggtagagc agaagaactg 300  
ggtgtaaggg tcgagtagta cagtaagtgt aaaaggaaaa ggaaaggaga 350

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<210> 5186  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-H9

<400> 5186

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ccacctgtca ctttagataa gcagtgcgtat gcaaagtatt ctccttgcac gctagagaat 180  
aacaaccatt gtttacttg gtgcattcgt tgcacacg caagtcacat tcaccatata 240  
ttacagtggat ttgattctgc aaggagagaa gaaacgtatg tttgtccagt gtccgggttgc 300  
aattgtcgat gttggatgga aggaggaaga atggcttgag ggtgcggcaa ttgtcttccc 360  
acgcgctcgg cttgttgctg acgcgtgcca aattccttct ttcggccgca tattatttcc 420  
cccacagagc a 431

<210> 5187  
<211> 322  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-058-Q1-E1-A4  
  
<400> 5187

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acggttctct tgctcctgct ggttaagtac gacgtcaaac acaaacggtt ccgacacaag 120  
aaaagaataa tcgtccaaaa gggagggctt ggcaaacact caagtacaat aggcgtttg 180  
tgagtatgt ttttagtttt gtttagagaa gatgtctcaa cgccaactcg tgaagcgact 240  
gcaatgagaa agacagtact ttacagcgat ttacgtctgc taaatgcttg cggcagccg 300  
ctctagagga tacaaactta cg 322

<210> 5188  
<211> 291  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-058-Q1-E1-A5

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<400> 5188

aattccggc tcgacccacg cgtacgggc aatcaaagct agttagatgt ggtactcctc 60  
gaaagctata taatgtacgt atgcaggaaa gaagaaggta aaggaagaga aggaagaagc 120  
agagagggac tatgagcgag aaggtggata gtcgagaggg aaaaagccca gaagccaaga 180  
taaggtatca aagtaaagaa agaaggaaaa ggagaagaag agagggtagg cttagaagca 240  
gcaaaccaga gaggaaagcg ttaaagcatg aaagaaaaga aatccgaaaa a 291

<210> 5189  
<211> 341  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-058-Q1-E1-A7  
  
<400> 5189

aggaacgtac gagaaagcca agtgaggaaa agaaggcaag tagagggcgg cccgagaaaag 60

gagagggcgt aagacgtgat acagagttagg aagaaaagag aagagagct a gaaaggaggt 120  
aaaagaagag taaaaggact agaagaggt a c g g a a t t c a c g a g g a a g g a a g g a a 180  
ggaggaatcc caagtaatcg aggaagaaaa agcttcggtg aaagcgtgaa c ggattttgt 240  
acacactgcc cgtcaagttc t g g a a g t g t g c t a g g a a t a a g c a g g a a g t a g a a g a g a g 300  
taggaaaaga agaaaggaag t g a a g a c g t a a g a c g t g a a a a 341

<210> 5190

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-A9

<400> 5190

gaccacgcg taagcggacg c g t g g g t g g t t c g a g a g a t a c c a c t a t a c a t c a c g a 60  
c g t t c g t a t c g c a c a a c a t c a c t g a a a c a c t c g a g g a c a c a a g a g t t t g t g g 120  
g t t g a a a t g g a a c g t c g a t g g a a c t c a g t t g g a a g g a a c g a t a t t g t t g a t 180  
g g t t t g g g a t a t c t t c a c t c c a g t c a a c c a a a a t a t c g t t a g a t c a g c a t c t t g c a g c 240  
t g t a a a a g c c a t t g c t t g g t g t c c t t g g c a a t c t a t t a c t t g c a a g t g t g a a c 300

a g c a g a t a g a a c g a t c a a g t t t g g a a t a c t a c a c t g g c t c t g t t a c a g t c a t c g a 360

t a c a a a a a g t c a a g t a t g t g c t t g c t c t g g a a t a g a c a t t g a t a g g a g a t c g t c a g c a g 420

t c a t g g g t t 429

<210> 5191

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-B11

<400> 5191

a a t t c c c g g c t c g a c c c a c g a c t c c g c c a c g c t c c g t c c a t t g g a t g a 60  
t g c a g a a c a t a g c a g t a a g c a a g g t g a a c t a a t c a a g a t t a g a a a c g c c a a t c t a c c c a 120  
a a g g a a c g t t t g t c a a a c t t c g t c c a c a a a g t c g g a g t t t c t a g c t a t a c t c g g a t c c c a 180  
a a g c a g t t t t t a g a a g c g a g a t c t c g a a a c t t t c t g t c t a c c c a a g g a g a t a c g a t c g c 240

tattcattat ttgaacagaa tttattggat cgatatttg caagtacagc caggagatgc 300  
cataagtatt attgatgcgg acgtaatgt ggaatttgcg ccgcctgccg atatggaaac 360  
acagcgccag tgaaaacaat actgcaacca atactattcc ttctaattct cattctacaa 420  
atatggaaag cgtagac 437

<210> 5192  
<211> 393  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-B12

<400> 5192

agcccacgcg tccggcgaac gggtgagtaa agaggtgtga aagagtggaa gaacatgaaa 60  
gcacagaaga atgtaagaaa tggtagagt aaaaaccaga aaggaagtaa aaggacggaa 120  
tgaaggaaag ttatggcaaa aacacgtgcc atcagcagcg gtaaaacgtg ttagcaagc 180  
gtagagcaga agaactgggt gtaaaggtcg agtagtagag taagtgtaaa acggaaagga 240  
aaggatagaa agaggaaagg gatgaaatgc agagatctct agagaaaagc aagacagaaa 300  
agacagaaag acacagtaaa ttagtcgaga aagcatacga agtggaaactg attacgaacc 360

cgtgttagtct atgcagtaca tcaactccca atc 393

<210> 5193  
<211> 331  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-B4

<400> 5193

gtggggaaag aggcaatgaa atggcagaag ctttgagaga aataagtggaa agactggcgg 60  
aaatgccggc agatagtggt tatcctgcat atttggcagc tagattggca agctttatg 120  
agagagctgg taaggtatct tggttaggct cccctaatac acaaggatctt attactattg 180  
tgggagctgt atcaccacca ggtggact ttcagatcc tttacgtca gccacccttg 240  
gaatcggtca agtctttgg ggtttggata agaaactggc tcaacgaaag cattttcctt 300  
cggtcaattt gctcaacccc tattccaagt t 331

<210> 5194  
<211> 344  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-B5

<400> 5194

gaccacacgac tacgggtttc accagtcggg ttgacagatc atcacaaacc atggaacaaa 60  
gtcaaaaaca gtgcttatgg caaacgacag gtgaaagtta tatcccttgt aaaaaatgac 120  
caagtgatag aaaagttata caagaaagtg gttgtgtgt tacgacaaca aagttattcc 180  
ttggcttga atacttgcag agcagtattt gaagggtggtc tcgactgcct ggaagtctgc 240  
acttgtttct atccaggttg atgtacactc acatactgac tagataacac taacaactcc 300  
ggatgcctt gagctgattc atacagtcgc tagtgagtat cccc 344

<210> 5195  
<211> 407  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C10

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<400> 5195

taagaaagga aatggtgatg gaataacttc tggttcattt agtcctcggtt ctccttatcg 60  
tattgcgact ggtcgttgg aaaagacagt gagagtattt gatgttagaga ccggtaact 120  
tttgcacaat ttctgtcaac atgcagattt tttatattttt gttgcctttt cgagtgtatgg 180  
aagatatctg ctatcagggtt cacttgataa gaacgttata ttatggatc ttgcagctcc 240  
ttctccaaat aactatacaa tttcaaaagg ccatactgac tttgtttgtt ctgtcgcatt 300  
tagcttagat ggtcctttt tcttgagtgg cagcaaagac cgtactgtta ctttctggga 360  
cccgagaatt cttctggaa gtattggcat attggaagga cacaaaa 407

<210> 5196  
<211> 167  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C3

<400> 5196

acgcgtcagc ccacgcgtcc gcccacgcgt ccgcgtttttt tttggtgaaa gaacatggca 60  
cttggaaatg aataacgccc ttcaaaaaaaaaa tgcaaggag tgaataccag gttgactgtt 120  
gagtttcttt caactgaatc cttacggca gttgctacca gtcatct 167

<210> 5197

<211> 304

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-058-Q1-E1-C4

<400> 5197

gtggttggtg acaacgacag gtttcgacgt cgacgatgcc taaacaaatc aaagatata 60  
aggaatttct gctttggtc cgaaaaagg atgccagagc catcacaatt aagaaaaaca 120  
agaccaacac gaaattcaaa gtccgttgca gcaaataatt ggaaaacttg gtaattaaaa 180  
ggaaaagacaa ggcgaacacg ttgggacaaa gtcctccaca agtttactt tgaaaaagat 240  
tgattagaca taaaactctat cgttgttgtt ctgtanaan anatnnnnnn nnnnnnnnnn 300

nnnn

304

<210> 5198

<211> 348

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C5

<400> 5198

aattcccgcc tcgacccacg cgtacggtct catatgtgtc gatttacgt caaaaacagta 60  
acgcggatat gagatagcat tctaattgaga gtcgaggtac cgagagtttggaaacc 120  
taaaatttac gtccatttgt gaagctttca aacatatctc ttttctcttg tataacggaa 180  
atgtgatttc gagagagaga gagagagaga agcataaggc ttgcactgat gaactttaaa 240  
gtttcattcg gaaaaatagt gcagtaggca aaatgcaaacc ttggtaaaac ttgggctctc 300  
aagctccctgg gataggcggc aattatgtct tgtccctcga ttcctaatt 348

<210> 5199  
<211> 337  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C7

<400> 5199

aattccggc tcgacccacg cgtacgccc cgcgccgg gcaattcgag gcgc当地 60  
gatgtaatga cgtgaacaag gtgcttgtga acaacttggt cactatgatt ttgtt当地 120  
cttcaaagtc aaggagttt tagtaaacat attcggtccc ttagcttac aattcatgga 180  
cacctgttgc cacagttctt tgtctgcaac tctcttggag ggttccccg agtc当地 240  
accaaagttt ttggtgagc acctcgacca gttgcttgtt gtggacctgc gttgctctca 300  
actgtacagt ttggacaca ttagacgttc ttacagt 337

<210> 5200  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C9

<400> 5200

aattccggc ctgcacccac gcgtacgccc acgcgtccga gtaccttcaa aaaggaacct 60  
catcggttga acgaaatatac tgaacatatg cttctgatt ctcaaaagcg agctt当地 120  
gagttttga cctgttgtgg ttgtcattgt gcttggaaacg cacggctaa tgctc当地 180  
attgtttgga aggcaaacga tagttgcatg gaatacaagg tatattggta ttccaagaaa 240  
gatggaagga agattcattt cgattgttgg gagtataaca gcaatgaacg catactttac 300  
ggttgtgaag agcagcaggt ggcttccgat tggaaatttat gtgtagaata tggcaatgtt 360  
cttactgtgt ttttaagtaa ttccgtatag atacaaagca acagtgtgtg tttgtgtgt 420  
tgacaccaca aaatgg 437

<210> 5201  
<211> 450  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-D12

<400> 5201

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cttcctgttc tcatgtttgt ggtgtggttt cctgcaagtt tggtatggaa acaaccagca 120  
acaactactc aaagaatttc aagttatcac tggataacta caaatggat atcttgaaa 180  
atgaaaacgtc attttctcc aaaccaccac accgtaaggt ttcctctccg catgtgaac 240  
tcggagaaca agacgcgacc ccgttacttg caatagttgc ctttgattcc tatcgacgaa 300  
atatactcga aaagtttcg ttggaatcga attgggtgct atgccttgta caacggtgac 360  
caagcacttt gttatgttagg ttacaccaa aacttgcaaa gaaagattgc ctttcacgcc 420  
aagttgcaac cagacaatttgc caaatttttc 450

<210> 5202

<211> 393

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-D4

<400> 5202

atccccggcc-gacccacgcg-tcagggcctg-ccaaatagta-gagaagaaaat-cgatcaaagt 60  
gaaagcagt aaaagatgag gtatagagaa tggcggtcct aacagtaagg atccaaaggt 120  
agcgaagtaa atacacctct gaaacgcgtc cagtacgaaa ggacaaacga gtgtAACACT 180  
gtcaagtctt ccaacgcagc gaaacagcaa taactgtgac aatgcagtaa actagcagta 240  
cgaccgagag acccagaact cctgactaga tacgtttagg gacgacagac aatcacgaac 300  
tagatgacgt gggtaagag atcaaagacc actgcattgac gataaggact ctaactgagt 360  
aaggaaaata agcttaagct agtttggccg ggg 393

<210> 5203

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-E7

<400> 5203

aattcccgcc tcgacccacg acgtcagccc acgcgtccgg aatcacacat catgaccaac 60

agcaacgtcg cctttgtaac cctcttgtct ccaaacactc ctagaaataa gctttgtta 120  
ggaaaaagac aacattcatg taaacatccg agtcacaata gttatacataa gtatcaagat 180  
gctgcttca agtgcttccc actgcaagca aaggaagatg gccaaaaggg aggtggaaag 240  
ttcaatcctt ttgcggcact tggaaatgtt gggacttta tggacgccgt gaagaaagca 300  
caggagttt caaaggaagc tggaaagatg caggaagagt tatcaaagac agagctgaaa 360  
gcttcttc 368

<210> 5204

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-058-Q1-E1-E8

<400> 5204

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agtcgtactt gaagcttaca cacacaatga cttcacacta tcatcagata tggaaacgt 120  
tggtagttgc caaccaacag ttgaaacaat gggtgcataa aaaccaacct ttaccaaata 180  
ccaccactac tactactacc caagacacgc cacaccaaac gagtc当地 agttcacaag 240  
tagagttgaa aatggaaatt gtcaaagaat tggacaatc catgtcgaa atagttctg 300  
tcgatagttt gctangaaa gaactggata caagtcgtct ggatgacttg tcacaacaac 360  
gacaacaact gttggaggat gcagtggaat gtgaagatga ctatgtattt cttcatcgag 420  
atacgcatcg tcacgtatgt aa 442

<210> 5205

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-F5

<400> 5205

aatgccccggg ctcgacccac gacgtcacgg gaaaaagata cctcataactc cggtcatatg 60  
agagatgagc aacgacggcc aacatgagca acgtggcgt ggtggcgt cgctgcata 120

aagtgcacaa agcttacttg tatgcgaaga aaaagaacaa acatacaaac ttggacttt 180  
tccgacgttg gtttgcctgg cacttacacc atgaaaactag tcaacaattt agcagacgtc 240  
attgggagtc agttgaacgg agataacttg acacgttctt ttcccatagt ggactatatc 300  
cagacgtcgc gaccatcaag tgtgaacgtat gataagtata tagactcgac gacgtttcat 360  
tc 362

<210> 5206  
<211> 441  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-058-Q1-E1-G10  
  
<400> 5206  
  
aattccggc tcgacccacg acgtcagccc acgcgtccgc ccacgcgtcc gagccacta 60  
tgagaatcct cttttcttt tgtaaaaaga ggagatgtat ttgaaaaaaag acaagaaata 120  
tctgcagcaa gaaaagagca aatttcctgg aatgaaatat catggagggt gagaatcccg 180  
tttatctctt ttctttgtat tcaagctgac ttacgatatt tcttgggtt gagtcgggtt 240  
gtttggtagt acagccttaa ttttgggtt gttataaatac atccaaggct aaatacgtaa 300

agagaggaaa gaggtgtatg atgcaggcaa agaagtgacg cagtagatca gagagtaaca 360  
catgcaagta ggttaagcga acgggtgagt aaagaggtgt gaaagagtgg aagaacatga 420  
aagcacagaa gaatgtaa a 441

<210> 5207  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-058-Q1-E1-G11  
  
<400> 5207  
  
aatgccggc tcgacccacg cgtaagagct cctggaggac atttaggttag attctgtatt 60  
tggacaaagt cagtttca gaaattggac gaaatatttgc gaaaccttac acaacccgt 120  
aaacaaaaga gcgattatac gcttccaaag tccatatttgc ccaattgtga tattagccgt 180  
ataatcaact ctgatgaagt acagtctgtt ttgcgaccta agataataag aagacgcata 240

tctactcgaa agaagaatcc actgaagaat aagaaggaaa tgttcagact caatccttat 300  
āgcaagggttc ttctgaaaga agcacgggag gctacgagtc aaccttcgca aaagagaaaag 360  
aagagattgc ttcgaaaaaa gaataagcaa gtgaagcaga ttggtcgaga gtattacaag 420  
aacatagtcg cgtaataaa 439

<210> 5208  
<211> 340  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-059-Q1-E1-A3  
  
<400> 5208  
  
cgcgtcaggt aaaaaaagat atatcgcaa ttcagctggt tgtgactaca agttatagga 60  
atgaagttc caatcacttt acggagaagc agaactgggt aatgaataca agagtctagg 120  
atgacacgcg ttttgcacaag acaggacctt catctggggc atgtgaggac tcgaatagtt 180  
ccaaatcggc tacagaaagt cgccactatt tgccaaacc gtcaacttgt agtttgcgc 240  
gttgttaacc tgaatccct cttgggtcaa cccgttttt aacaaatcca caaggtatac 300  
tccgataatg aaagcgaaaa gattaacttg ggtcctctcg 340

<210> 5209  
<211> 223  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-059-Q1-E1-A8  
  
<400> 5209  
  
ggcagatgtt gcgcaagaag ttgaaattac cgctatgcc aacttttagtt gttatagaac 60  
aggaaagaaa gtgaaagaac tcgtgggtgc ttccaaggac cggttaaaac atatgattga 120  
gaagaacgct tagtgtttt gtgtgtttt aagcatttgt tggagtaaag aatcatattt 180  
ttgtttcaa gtaaagatca tgtaagttct gttgataat tac 223

<210> 5210  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-B10

<400> 5210

cgggcccggacc cacgcgtcaa gtgatgctat gactatgccca ttttgcttg tatggatac 60  
gacttttaag ttttcaaaaa ttcccttatcg aaggcttct accgacctat gtaaacccaa 120  
ggtttgcactg gtttctctta ttgtacaacc taaaatttag ttttagctatt tcagcaccgt 180  
tcgtctctat tgaaacacaa tacccaagcg gtcttcttca aggagaccga aaagacaaag 240  
tctacagaac ctgttaatgt taccagcgct cccaaactcaa actcaaagtc ggtcacattt 300  
gacggacagt tgaataagtc tgcttcta atcatctccac gaaccaatat atctctggac 360  
tctgcaaagt taaaagagta ctccctcgaag ttccctcaacg atatttcttt gcgacccggg 420  
ttctatggtc aac 433

<210> 5211

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-B4

<400> 5211

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tcaccattgt tggaaaaga acgaggagct tcttggata tgaggacgca aggttcta 120  
gtcacccggaa cctcgaccga tagcaggta actttagaaa gtccaagaaa tatttccagg 180  
gcacaccatc ataggcggtc aagtagtcaa gctgttaagac tacttcgtca ggaaagcacc 240  
cgggttcgca ataatgttgtt ggatcggtt cagcgagatt tactgccagc agggagactt 300  
ctaaccgttc ttttagttac gagcgagttt acagcggagt tattggtaact tttatggat 360  
tggaaagcaaa cctgtgatcg tcctttacac tttggatat gtgtttaat ttttatacag 420  
ctatttcac ttgttctgaa c 441

<210> 5212

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-B7

<400> 5212

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ggaacgggtg aaaactcgct tggaatttgtt ttttatagac ttgcgtacata gtgtacctgt 120  
tggggaaagg ctcaaatgtc ttcaagact tgacgagata tctgttcgag ccaagcaata 180  
ttttaaagga ttgcatactgc ttatatccga caaatacgaa atttctaact tgacggacg 240  
catttctatt ctttatttct ttgaatgcag agaactcgac aaatttctgt gttacaagta 300  
atggttgatc ggttggggg agactccatc atgtgctata actttgcagg gttggaacat 360  
gtgtatgttg aagtgaaaag tcgaagagtt cctccatag ttg 403

<210> 5213  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C6

<400> 5213

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cgatcccttg-gataacaact-tgttggttga-cttgggttaa-atatttagtat-ttacaagaat 120  
ggcttagtgtt tcgggtcttc ctcgaagaat tataaaggag acggaaaagt tacttcagga 180  
tccagttcct ggaatttagtg ctgttcctca cgaagacaat gctcggtatt tcaatgtgat 240  
tatccagggc cctgattttt ccccttatga aggaggaaca ttcaagttgg agttatttct 300  
tcccgaagac tatcccatgg ctcctccaa agttcggttc ttgacaaaga tatatcatcc 360  
gaatattgac cgcttggaa gaatctgttt ggatataattt aaagataaat ggag 414

<210> 5214  
<211> 402  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C7

<400> 5214

aattccggc tcgacccacg cgtacggaag aaagaaggaa gagaagcgga tgttaaagg 60  
aagaggaagt agaagatgtg tggaggtatt gaggaaggag atgagcataa ggaggagagg 120

agtgagtagg ataagggtta gggagaggat aaggagggga gaggagatag ggataagtta 180  
agagaagaga taaaggaaga gaaggataa gagaggagag aaggagagga agggaaagtaa 240  
aagaggaggt aaggaatgta agtaaggaag aagaaggaag agggagtagg aaggagagag 300  
aaggaaagaa aggaagaagg agaagaaaaga aggaagagaa gcggatgtta aagggaagag 360  
gaagtagaag atgtgtggag gtattgacga aggagatgag ca 402

<210> 5215

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C8

<400> 5215

gaattcccg ctcgaccac gcgtacgcat tccaccaggg gagtaaaggc gcaagaaaga 60  
aacccaaagc aattgacggg aatcgaaaa aggggtggat cacgtaaatt aatccgatat 120  
aaaccgagaa ctttacctct ccaagaaggt gttgcacggc tgtcaaaga acgtgctgt 180  
aagtgagaga acgtacgaga aagccaagtg agaaaaagaa ggcaagtaga gggcgcccc 240

agaaaggaga gggcgtaaga cgtatacag agtaggaaga aaagagaaga gagctagaaa 300  
ggaggtaaaa gaagagtaaa aggactagaa gaggtacgga attcacgagg aaggagcgtg 360  
aaggaaggag gaatcccaag taatcgagga agaaaaagct tcggtaaaag cgtaaacgga 420  
tttgtacac actg 434

<210> 5216

<211> 273

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-D10

<400> 5216

tttaaggca acttgtatac gactttat aggtacatat tttgaaata aaagcaccccg 60  
taatttcat gttgacaagc gagtgacgaa agacaaaggt gtctagctcc gttgcaacac 120  
tgttgatagt actatatata tacatgtgtg tgtgtgtgtg tgtggcggtg gtgtcggtca 180  
ccaaaagaat ccagaagatc attcataaac agtggaaata cttgtaatgg gtgtatggata 240

tgttttcta gtcttggaa ataaatgaca tgc

273

<210> 5217  
<211> 420  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-D6

<400> 5217

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tttgaggaag cgcatgtct tcgtgataatc ataacgaacc aagcaccc tcgtgccttg 120  
agtgcagtga tgcaagttgc tcaaaaatgt aacaagacca atggcaccca agataccgt 180  
tcattacaga gtataaagcc aagttgctat tctagtcatt ctatgttagg aaccgccaga 240  
aacagttgca agttgacaag agaccaagag ccgtgggtga cagattttc cgtatcgct 300  
tcgagcagct cagagattcc tctaggttca ccttccacat cgtctctagg ttcttcagct 360  
agtggagcag tggaaccttt ggcttccggt agtgcttggg tttctccctt tctattgaat 420

<210> 5218

<211> 357

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-D7

<400> 5218

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tttctgaaac acaaataatgc gtgccaagtg gaaaaagaag agaacacgcac gcttgaagcg 120  
caagagaaga aagatgagac agcggtccaa gtaacggaag aattcctcgg acgtctgagt 180  
tgaatagagt tcctaaaacg tggaaaaact cttttgcaa ctctggcgca gtgagtatac 240  
cctgctacgg aaggttgaa gtgttccga ggattgttcg caagttatga taaaagggttc 300  
ttgtggtttt tgtttcaaa aaaaagtaca tcaacaaaag gaacaagtga aaaattg 357

<210> 5219  
<211> 372  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E12  
<400> 5219

cgggccgacc cacgcgtcag ccaacgcgtc cgagaatgg acgataagga actaggcaaa 60  
aggatatggt atctgcggta gaacatatga aagaagcagc accgactgtt tagaaaaaac 120  
acagcactct gcagaaaaga gaaaatgtaa agtatacgat gtgcggcctg ccaaatacgta 180  
gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatacgagaa tggcggtcct 240  
aacagtaagg atccaaaggt agcgaagtaa atagacgtt gaaaggcgtc cagtatgaaa 300  
ggagaaacga gtgttagact gtctagtcgt ccaactcagc gaaacagcaa taactgtgaa 360  
aatgcagtaa ac 372

<210> 5220  
<211> 75  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E4  
<400> 5220

ccccaaaagg atcaaacctt acgtaccctt gaatgcaacg tc当地 aaccct tc当地 aagtgt 60  
caccaaaaatt caatt 75

<210> 5221  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E7  
<400> 5221

gaattcccg ctcgaccac acgtcagaag aaaaaagagt tgtctgagga ccaaacagag 60  
tgacaagaag agatggcaag gagaatattg ggtgcttata tggagatgc cacagtggca 120  
actctgttca gtatcaaaaat gttgttctat cttaatcatca tggtttctc cataactatc 180  
ttggctctca tggaaagaa ctcggatggt atttggatac atagtgtgcc acctgcagaa 240  
caatattgtg catacaagtc ttcatggag gtgaaccacc atgaaattgc ttccatttgc 300  
aagtatatcg ttgccgtac tgctattggg ttggtatct cgttttcca gttttgtac 360

ggtctgttgg gtagttttt caagtggcaa caaaagttgt ggtatattga agatgcttc 420  
aatctatTTT 430

<210> 5222  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E8

<400> 5222

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aagacgtaaa gaatggacaa ggcaaacaac tataaaccca agttcctcc tatcaaagaa 120  
agaaacagaa tagcgacgga ccaaccagaa atacgcagga ttccggtacc ggccaataga 180  
tatactccgt taaaacagtc ttggttacaa atatatgagc ctttggtaaa gcacctgaaa 240  
ttgcaagtac gaatgaattt aaagtcaaga atgggtgagc tcaagaatgg tcctgaaaca 300  
gatgactatg gcgcctccta gaaaggtaaa gagtttgac gagcgttcct cgtaggTTT 360  
caagtttctg atgccttggc tttgattcgg ttggacgact tgTTTgtga cagtttgac 420  
att 423

<210> 5223  
<211> 375  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-F10

<400> 5223

cggccgacc cacgcgtcag gaaagaagag agtgtaaggc ggcgtcataa tagaaatccg 60  
aaaggatag aagaaaagag agagaagaaa gaaaagaaga gaaaagccgt actgaagacc 120  
gacacaggtt ctcgaggaga aaggagaccc aaattaaggt gagagaatgg acgataagga 180  
actaggcaaa aggatatggt atctgcggta gaacatatga aagaagcagc accgactgtt 240  
tagcaaaaac acagcactct gcagaaaaga gaaaatgtaa agtatacgat gtgcggcctg 300  
ccaaatagta gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa 360  
tggcggtcct aactg 375

<210> 5224  
<211> 425  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-059-Q1-E1-F11

<400> 5224

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gctgttaagaa gaagagttagg atcggcagag aacgtacgag aaagccaagt gaggaaaaga 120  
aggcaagtag agggcggccc gagaaaggag agggcgtaag acgtgataca gagtaggaag 180  
aaaagagaag agagctagaa aggagtagaa agaagagtaa aaggactaga agaggtacgg 240  
aattcacgag gaaggagcgt gaaggaagga ggaatcccaa gtaatcgagg aagaaaaagc 300  
ttcggtgaaa gcgtgaacgg atttttaca cactgcccgt caagttctgg aaatgtgcc 360  
aggattaagc aagaaaatta gannagagta ggaaaagaag aaaggaagtg aagacgtaag 420  
acgtg 425

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<210> 5225  
<211> 352  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-F12

<400> 5225

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agtcgtccaa ctcagcgaaa cagcaataac tgtgaaaatg cagtaaacta gcagtaggac 120  
ggaaagaccc cataattctt gactagatag gtttagggag gagagagaat catgaagtag 180  
aggaggtggg gtaagagatg aaagaccact gcatgaggat aaggaatcta actgagtaag 240  
gaaaataagc ttaagctagt ttggctgggg aagtaaagcc taagaaagag taaatttaggc 300  
aagcaaaggc atgagagaag tataatagca gaagcatgct tgaagaaaaa ga 352

<210> 5226  
<211> 181  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-059-Q1-E1-F4  
<400> 5226

cccttggaa aaaataaaaa aacaaaaaaaaaaa aaaaacaaaa aaaaaaaaaaaa aaaataataa 60  
aaagaaaaaaaaaaa aaaagaacgg aaacacagcc aactaggctc tcccggtggg aggatcaaag 120  
cgttggttcc cactgatccc attccatgac cctcctataa gacaccggat ttcctattca 180  
a 181

<210> 5227  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-F6  
<400> 5227

aattccggc tcgacccacg cgtacgggtc gtgcagctt tgcaaggttt ggtggattgg 60  
aacatgtgta tactcccacg ttgattcaag gcgacttgag tagagaaaag gtcatatctg 120  
tttcttgtgg acgcagtcac acagcagctg tcaccgagag tggacaagta tggacttggg 180  
gatatggata cgaaggtgaa ctggacacg gagaaaaagtc aagtcaaggaaac 240  
gagtagagtc ttgtacaaa gtggtcgtat ttgcttgtgg aagagacttt acaattttg 300  
tgtgtgagga cggttatat tcctgtggag ctgatgacta tggacaactc ggtaggtc 360  
ggtcgcattgg agagaggttt gtacaaactc caagatcaact ttcaggaact ggctatcgg 420  
aaattgttgc 430

<210> 5228  
<211> 338  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-G4  
<400> 5228

cgcgttaagat aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa taaaaaaaaaaa gggcagacgc 60  
actaaatgtat aaaaagctta cttacgcgtg taagagaaag tcgttaggtct tctatagggt 120

tggtaaggt catttactg gacatagtt tagaaattct tcattggaa aaccttcag 180  
ttacttaact tagtcgcctt gtggcagatc aactttcgc cagcaggagt caaatcta 240  
tggtcttcat ctgtcgacct tcactagtg tgagccactt gcattggaaa tggattcgc 300  
attgttagcca ttcatgtatgc tcggcgggtg atgggtat 338

<210> 5229  
<211> 162  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-059-Q1-E1-G5  
<400> 5229

cgaccacga cgtcaggat gaaattgctc attcaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa aaaaaaaagga agacgaacaa aaggataaaa aacttaaata aacttgcaag 120  
cgaaagtcat aactcttcta aagtgtatcat ctaaattcaa tt 162

<210> 5230  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-059-Q1-E1-H5  
<400> 5230

aattcccgcc tcgacccacg acgtcagccc acgcgtccgc ccacgcgtcc gcccacgcgt 60  
ccgccccacgc gtccgccccaa attaaggta gagaatggac gataaggaac taggcaaaag 120  
gatatggtat ctgcggtaga acatatgaaa gaagcagcac cgactgtta gcaaaaacac 180  
agcactctgc agaaaagaga aaatgtaaag tatagagtgt gcggcctgcc aaatagtaga 240  
gaagaaatcg atgaaagtga aagcgactaa aagatgaggt atagagaatg gcggtcctaa 300  
ctgtaaggat ccaaaggtag cgaagtaat agacgttga aaggcgtcca gtatgaaagg 360  
agaaaacgagt gtagcactgt ctagtcgtcc aactcagcga aacagcaata actgtgaaaa 420  
tgcagtaaac tagcagt 437

<210> 5231  
<211> 431  
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-H6

<400> 5231

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ggtggaatca aacgctgacc aaagagcggtt ggttgattat tggtcagct attttaggag 120  
gtttcggttc cagaacttta tttgcaactc atgacaattc acagccacgc caaggagaca 180  
aggcgcttcc aaacaggcga aaacaaagca accgtagaag caaaactact ggaaatgcta 240  
cagagcaaaa gagtccttt tggtggccat ttaagttta atattgttat tctagtttg 300  
tcgacgaagt tccgttaatta cggaggcaag agcgtanggg tcgaaggcctt gttctaacaa 360  
ctctatcgcc acttgtacag tttctctgtc tagtcacgtt tccaaaagtc tcgctatttc 420  
gttaggaaact a 431

<210> 5232

<211> 352

<212> DNA

<213> Cyanidium caldarium

<223> unsure-at-all-n-locations

<223> Clone ID: LIB190-059-Q1-E1-H7

<400> 5232

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atggatagaa aggttctgt tcagttaaat gcaaaccgca aggtggaaagg cgttctccgt 120  
ggttatgacc agtttatgaa cattgtgttg gaagattgtg tggaaaaact aggacctatg 180  
aatgataagg aaattggcac agttgtgtta cgaggaaata gcgtttcat ccttgaagtc 240  
cttgaacgag ccacgtgacc tcgtctctct ctctctctct cttgctttct cggtagaaa 300  
acccaaaata atacatctac actgttttat tagaaaacaa atnnnanaat aa 352

<210> 5233

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-H8

<400> 5233

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ggacctactt agatactatt cgaccaagtc accagatgaa atgattcat tgaaggagta 120  
cgtcagccga atgaaagaag gtcaagactc catctattat attacgggtg aaagcaaaca 180  
agcggttag aattcgccct tcttagaaaa gcttcgacgc aaaggatatg aagttctctt 240  
catggtgag ccgattgatg agtactgcat ccaacaactc aaggaatacg atggaaagaa 300  
gctggttgc gctacaaagg aaggtctgaa attggacgaa acagaggaag agaagaaaga 360  
gaaggagggaa caaaagaagt ct当地gaaca gttgtgcact gttattaagg aaattcttgg 420  
agacaaagt gagaag 436

<210> 5234

<211> 418

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-A12

<400> 5234

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agaactggaa ttgaacaata tggatagagc agttgaacctt ttacaacagg cactgaagat 120  
aaacaatttg gactcgtatc tatggctaca atatgcagtg gttgaacata gacgtggcaa 180  
tgttccaagg gcgcgtgctc tgttaagcg aggtgcagat atcaatccct ttgattggtt 240  
tctgtggag gaatggagtc atatgaaagc gaaggaagga aaccaaaaagg aacgagaaca 300  
acttgcaaaa aagagtgtca aagcaaaattt acgaagtatg gaaataatt tgtcaagata 360  
cgatcgtgag cattctttc aaccaagtttataa gaaaggcagc atgaagac 418

<210> 5235

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-A2

<400> 5235

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tacgcttaat gttgccatca atagtcataa caatgctttt ctaacccttt tggtttccaa 120  
tcaatttgta gaagtaaagg gatcggttagg ttgttagtatt ttccttttat acgacagttt 180  
atgtggaaat atttaggtat ttaaagcaat aagattggaa aatctatttc aaatatcatg 240  
tgcggattcc gtggagcggt ttcaattgtg tggtttctt tctatgacat gtttcagag 300  
tcaaggaaaa agcattatgc tatttatatg gctcatcatg tggtttgcgg aaaccttgat 360  
tgattggatt aagcatgcct ttgtgaccaa gtttaacggc atatcctaca aagtatatca 420  
acagtttcc t 431

<210> 5236  
<211> 360  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-060-Q1-E1-A5

<400> 5236

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tatactttta cagtgcggaa catagagctg gctaattctaa cagacgtata caacagcgt 120  
gtattggcttttacccat-tgcttccat-gacactgctt-ggaaacaatc-aagagccat 180  
gtcactggtg cacttagtgc agcaaaacaa aacgtaacaa gagcaatagc gtttctagaa 240  
cgcttgatag cagcaaggcac agtgaataaa acggtgagggt ttagtaagct ctctagtggt 300  
acgaacgagg ttgttcgct ggcagggtta ccgcttaatt tcacgaaaa ttctactgga 360

<210> 5237  
<211> 393  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-060-Q1-E1-B1

<400> 5237

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gtttcctcca agggatcgat gtttctatcc tctttgtact gagtattgtatc tacagatatc 120  
atagtgtgtg aaatacttgt gttccatgtc gtcctctatg aaatccaaact tttatgctct 180

actaccagac gacgcagaag atgccacgga aggagtcgtc agcagaacaa catcgacgag 240  
tgttggaaaag cccaaagcat cttctgcttc ctctgtggcg tcctccacca aaacaaacaa 300  
agtaaaaaata ccgcattgtac acgcttgcc agtagcagaa gaagaggata caactttggc 360  
ggaagaagag aaanaggaaa acactctccg cac 393

<210> 5238  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-B12

<400> 5238

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gccacaacgc attccaaata agaagaaaag gagtcacgct ttcaacagag aaaggaaatt 180  
taaagggtgt cagtaactttt aaatattcgg gtcttgctca accgaaggcc gtcgacattg 240  
ctccagctac agaaactttt ggtatTTTGT actcgaagaa acgtaccaag aaagatgctg 300  
ctcgaaaacc ttcgagggaa tttcatactg atgtcgtgaa aaaaggcttc ctcggctgtg 360

caaaagtgcgt ttgcaggat cttgcaaact atgcaccgga cttgaagaag cttgccattg 420

caagaatat 429

<210> 5239  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C10

<400> 5239

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aactgggtgt aaaggtcgag tagtagagta agtgtaaaag ggaaaggaaa ggagagaaaag 180  
aggaaaggaa tgaaatgcag agatctctag agaaaggcaa gaaagaaaag aaaggaagac 240  
acagtaaatg aggcgagaaa gcataggaag tgaaacggat taagaacccg ttagtctat 300

gcagtaaaag aaagaatgag taagaaaaaa gggagtcatt ccaccagggg agtaaaggcg 360  
caagaaaagaa acccaaagca attgacggga atcggaaaaa ggggtggatc acgtaaaatta 420  
at 422

<210> 5240  
<211> 388  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-060-Q1-E1-C2  
  
<400> 5240  
  
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cacgcgtccg gaaccgcgtgt agtctatgca gtaaaagaaa gaatgagtaa gaaaaaaagg 120  
agtcattcca ccagggagt aaaggcgcaa gaaagaaacc caaagcaatt gacggaaatc 180  
gaaaaaaagg gtggatcacg taaattaatc cgatttaaac cgagaacctt acctctccaa 240  
gaaggtgttg cacggctgtc gaaagaacgt gctgtgaagt gagagaacgt acgagaaagc 300  
caagtgagga aaagaaggca agtagagggc ggcccgagaa aggagagggc gtaagacgtg 360  
atacagagta ggaagaaaag agaagaga 388

<210> 5241  
<211> 362  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-060-Q1-E1-C3  
  
<400> 5241  
  
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tggcccttg tcgtactttt gaacactttt tttggcttc ttttgttagt aactgtttt 120  
ttttctttaa ttgaagagc ttgggagttt aactggagtg gtttggggg ctacttatgt 180  
actgagcccg ttgggtttt tttttttttt ttgggtttt tttttttttt tttttttttt 240  
cagaagagtt acatgggaga atacggacgg tgatatatgt gtatgtttt agactgggtt 300  
tgtgacagag gaagaagagg ctgacgttgt tgctcngan cgtgggttag agagtgtgt 360  
tg 362

<210> 5242  
<211> 426  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-060-Q1-E1-C4  
  
<400> 5242  
  
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ctcgttgctt gaacagttct cctcctccctc cttcttgttg ttgtcaaaac aagttgtcca 120  
ataaaaacgtg ttgtgataga cgcaagtttt tgaatgattt ggtatggaca acgaaaaagt 180  
tggtggttaac aagtgcgagt tattttctcc tggtaatac tactgcttgg gcagcgaaag 240  
aagaaaaaca aagtgtccct gcagcagttg ccaatcaagt ggagacatac aaagacttgg 300  
taaaaggta taaaatattt cggccgatag gttggaatca atttgcgttca caacgaaacc 360  
aatatgatat caagtggcaa gatatcattc agcctttggg aatagtgtatg attgctactg 420  
tggatg 426

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<210> 5243  
<211> 256  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-060-Q1-E1-C5  
  
<400> 5243  
  
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tgaggaaggt gtccggagtct tctccaaacgc ttccggacttt ggtacgagca aaataaaagt 120  
tgtggaaatat tggggtcgtc caggtcgcattt gttccaaagag tagaacgtgc gttttgtt 180  
tggatgttgg gtgaacaaca tttgttcttg tctgaaataa aataacagct atgctacaaa 240  
aaaaaaaaag aagaag 256

<210> 5244  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-060-Q1-E1-C9

<400> 5244

cggtcaggca ttcccggtg cccccacgcg tccgtaaaag agcagcatga gggacctatt 60  
tatacagttt atgggtctca tcaaagtggc cttatcgta ctggaggtgg tgacgacgca 120  
atacaaatct atcaagaaca gcctttgga aagactgaaa cacttggaa cacaaaagaa 180  
caattgcttc cgtctcgaga tatagcgtgt agtgattcag aagattccag ccgttccgaa 240  
ccttttacct tggtagctac tattcctcaac gcacatgaag gtgaggtaa ttgtgtgaaa 300  
tggaaatccac aggatggta cgtctcgct tcttggcg atgacggtgt aataaatatt 360  
tggcagataa gtataaacta attctgactt tcggacaaga cgcgttggc actagccgtt 420  
gtcgttg 427

<210> 5245

<211> 386

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-060-Q1-E1-D1

<400> 5245

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agagaagaga gaatgctggg tggagtagcg aaacaagaga aggaaagtaa aaggtaagaa 120  
agagggaaagg tttacgagag aaggaagtag aaagaagaga gtgttaaggcg gcgtcataat 180  
agaaatccga aaggagtata agaaaaagaga gagaagaaag aaaagaagag aaaagccgta 240  
ctgaagaccg acacaggtac tcgaggagaa aggagaccca aattaaggta agagaatgga 300  
cgataaggaa ctaggcaaaa ggatatggta tctgcggtag aacatatgaa agaagcagca 360  
ccgactgttt agcanaaaca cagcac 386

<210> 5246

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-D10

<400> 5246

ttcccggtc gccccacgct tcagaaggaa tcgtccgagg aaacaacgca gcagacacaa 60  
gagatttctt tcgagagtat attccaagaa cctgaaaatt ttagagaaca agttcctatt 120  
ttcagataca cgagctattc tagtccaaac cgaggtttc gttccacaa catcagactg 180  
gttggaaaac atccactatg gggtcactat ctttggaatg gagcagttt acttgcagac 240  
attcttcag gagaagctcc cattcctact catatacaag tagttggta tcgaatatta 300  
gaacttggag ctggagcagc agtgcctagt atgattgcag cgttgcgtgg agcaagttat 360  
gtgttcatca ccgattatcc tgacaaggaa ctcgtggaaa acataaagta taatat 416

<210> 5247

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-060-Q1-E1-D3

<400> 5247

gggtcgagnac acgcgtcagt accattcat catgaaatgg cacagtctcc aaaatatcca 60  
aagaaattat tcttttattt tgatgtggaa cctccacgtg gaggggaaac gccaatttta 120

ttatctcatc tcgttatataca agaaatgaag caacgatgtc ccgactttgt tgcaagcattt 180

gaacaaaagg gcatcaaata tacgagaatt atgccagaag aggatgatcc ttccactccc 240

attggaaagag gatggcgatc gacgtatgct gtgaacagtc gtgaagagtt ggagaagcgt 300

tgtcatgaac ttggttccga attggagtgg ctggaggatg gttgtttaaa ggttactaca 360

at 362

<210> 5248

<211> 340

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-D5

<400> 5248

agattggaaa gaaaattgca ggaactggaa tccaaaagta tagtagcag cagctccgag 60  
aatatcatcg tcattactgg aagtggacat cataccaaag gaaagaaaac gccagctcg 120  
ttgtatcccg cagtcgaaca gttcttgttgc tcccatcgat actcgatcca agtagtgaaa 180

gataccaaca agtatgccgg agcatttctg gtccgtcttg gcggctagtt ttatggata 240  
tatctctcca aaaacttgcg atgaaactcg ttgcgaacgg ttcgttgat aaacccttg 300  
tcatttcaa aaaaaaaaaa aagaattgaa gaagaaggaa 340

<210> 5249

<211> 428

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-E3

<400> 5249

cacgcgtgca gtgcggtcag gaattaccgg gtcgagccac gcgtcagccc aagcgtccgc 60  
ggacgcgtgg gtacgacagc aattttcagt ttatcaaagc tcgagtagag gatgggtcta 120  
ttggagaatt gcgttggttt catattcatt ccagagatcc tttgcctcct ccagccgaat 180  
atttggccac tagtggtgga atatttctag atatgacaag tcatgacttt gatatggcaa 240  
ggtttatcag tgggagtgaa attgaacaag tgtttgcag tggaagagca tttgatgagg 300  
aagcgaaaca agcaaacgtt ttggatactg tcatgattca cttacgaatg agaaatggaa 360

gtatggcac tattgataat agtcgtcggtt gtagttatgg atatgatcaa cgaatagaag 420

tttttggg 428

<210> 5250

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-E4

<400> 5250

ggtcaggaat aacgggtcga gccacgcgtc agggttccac agacatgtcg aacgacaatc 60  
agtctgataa gagcactttg aaagaagcgg aggagaagct gcagagtgcg gttcatactg 120  
gaacagagaa agtttctcag gtgttgcgcg acgtcaagga aactgtgacg gagaaataca 180  
aggaatggac agcacaaaaa agtagccaag aagaagcaaa agaaaaagca caagaagcga 240  
aagaagaggc taataaagct ttatgcta taaaagaaag tgcgagtgcg gttcagagg 300  
ctgcatacaga gaaagcagaa aaaattaagc aggatgtgaa ggagtgaaga tacacagttag 360

ttttctccta tagtgttctt agtagtattt gtagtgatat ttgtctcgta atgaa 415

<210> 5251

<211> 309

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F1

<400> 5251

cggtcaggaa ttacccgggtc gagccacgcg tcagcccaca cgtccgcccc cgctccgca 60

cgggcaatgt ctcccaaattg aggttttacc gatgggcgac tattgctaatt tgaaaactac 120

tccaattcac gcgcgttac acctctcgtagg tgaccgtgca atttttggaaa ccttctaaaa 180

aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 240

aaaaaaaaaaaa aaaaaaagaaaa aaaaaaaaaaca aaaaaaaaaac ggagaaaaac aaaggggggc 300

gccacacaaa 309

<210> 5252

<211> 212

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F12

<400> 5252

cccacgcgta cgaactgatt gacgatataa aaggaagaac ggaccgagtt ttacaagtgc 60

atattgctgg agtattcttc ccggccgttt ttcaaggatt ttgaagaatc ctggcctttt 120

tgcgtcaat atgttaattc caatagagca attgaggaac ggaagtacct aatttttcaa 180

tgcgttagta attccttggt tcgtaactaa tg 212

<210> 5253

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F3

<400> 5253

ggtcaggaat aacgggtcga cgcacgcgtc aggaaatgct gctgctgtct gacgagaaga 60

atggcagttg tacgataact tgcgtttc tcgaaagtgc atttgtatta tggagcgtta 120  
ttcaaaagaa cagtgttgcgt gtgtccacta cttaaataa tagaaactgg agaatgcaaa 180  
ataacaacga aaataactca cctaaaagat atcctttga agacgattgg agagaaaagt 240  
tgaatagaaa gatgaaacag gaaaaatag ctcgacaagt tatgtctcaa gtgcaagagt 300  
tgagatggaa agaaagtttgcgtt gagggtaca ttgagaacga agtggAACat attcgaaacc 360  
acgtcagtaa taatTTTGT tatcatcagc cacaaattat gaacaaaggt gttgaaactg 420  
caaaa 425

<210> 5254  
<211> 398  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-060-Q1-E1-G10

<400> 5254  
acgcgtacgc acacgcgtcc ggattgtgg gccttctgg ggtgatgccc tggattgagc 60  
tacgttagtgg caactccgct gtcttggaaag acataactgc aagtattgaa aagcctgaca 120

taggatggat aactaggacg aatctcagta cttgtctgaa ttctgcagaa ggaaatgtta 180  
cggttgactt gtgcggcag tgtancttga agatattttt ttccttgaag cttctcgaca 240  
ataactttaa tttggcgtgt ttatgtatgc cttgtttt agtttacca ggcttaccct 300  
ttgttattac tgaaaatcgt aaattctgtt gacgctcgaa cttgaatgaa acggaaacat 360  
tggagtccctg ctttcgttt atgaagatat gccccacg 398

<210> 5255  
<211> 323  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G11

<400> 5255

tccggctcga cccacgcgtt cggtttattt agtagaaaa gtagtttttgcgttacaaga 60  
taatgtcaat cccttgaatt tggtaacca aggtttccgc tccaggatt tggctttggc 120

cacaatatta cacctgccat gtacatttgc gggataaaac ccaaattggcc cggtgggtgt 180  
caagataaaac ccctgtctcc gtaacctgct gggtacaagt tgcgactttt tttgacgata 240  
ccctgtacaa ttttgggttt taatttaaag aacaacaacc aacctcgta cattttatgg 300  
gtaattgttt tgaatatatt ata 323

<210> 5256  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G12

<400> 5256

cggtaggaa attccggctc gacccacgct tacgcagacg cgtgggtcg ttgacgttgg 60  
tgcctcatta agccatcggtt gaactacatc ttttatctct tgttagcacaa acacaaatta 120  
aagaacaatg cgtgaggta tttctcgaga tatttgtcaa gcaggtgttc aagtagcaaa 180  
ctcttgctgg gaactttatt gtttagagca tgggtgtcaac gctgatggaa ccattgataa 240  
aaaggaaac acagcaaacg aagaagctt tggtaccttc tttacccaga caagctcgaa 300  
acgatatgtt cctcggtgtg tatttgcga ctggAACCTC tctgtcgtag atgaagttcg 360

taccggtgcc taccggccatc tctatcatcc agaacaactt atttcggcaa agaagatg 418

<210> 5257  
<211> 373  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G2

<400> 5257

cgggtcgagc cacgcgtccg gtgaaagcga gtaaaagatg aggtatagag aatggcggtc 60  
ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga 120  
aaggagaaac gagtgttagca ctgtcgagtc gtccaaactca gcgaaacacgc aataactgtg 180  
aaaatgcagt aaactagcag taggacggaa agaccccata attcttgact agataggtt 240  
agggaggaga gagaatcatg aagttagagga ggtgggtaa gagatgaaag accactgcat 300  
gaggataagg aatctaactg agtaaggaaa ataagcttaa gctagttgg ctggggaaagt 360

aaagcttaaga aag

373

<210> 5258  
<211> 363  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-060-Q1-E1-G3  
  
<400> 5258  
  
ggtcaggaat accgggtcga cgcacgcgtc cgggccatac ccccgttcaa tcgctatagg 60  
aaagttagca atacagtctt caaggcaaca gctttAACGT tgtcactgc tgcagtaatt 120  
ggaaacctat acatattcgc aaacttgctc agcatagttt cctacagaag ttcaaagaag 180  
gagctgacgg aagccagtaa tgctcagggaa aactgagaaaa cacaagttgt cttcacgtct 240  
ggaggatgga aatattatct gaagctaggc tgggggtctg ttcctttag aagctctgg 300  
gttttgagaa ctgcatttgc ttttgttctt ttagttaaag aaattgtctt ctttttctt 360  
  
aag 363

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<210> 5259  
<211> 362  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-060-Q1-E1-G4  
  
<400> 5259  
  
cggtcgacg cacgcgtccg aattcatcac gggaaaacat ttcttctgtg cgtcgaagct 60  
atcatgaagt aagcttttc gattggcag cagatgacga aagtcatcaa acctcgaaag 120  
caacctacca gttggctttt gaacccaatt caggaatgcc taagcgctct ccagttacga 180  
ttgacaagac tagaccgaaa gatgatacta agagttgtt gaaaagacaa gatgatgtat 240  
ccgaggagcg aagtatggaa caaggaggag caggttaagct acgtgggtcg agaaatcggt 300  
attcatcgag atacggctct acagaaggag agcgacatag accaaacgggt agacagccat 360  
  
tt 362

<210> 5260  
<211> 326  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-060-Q1-E1-G6  
<400> 5260

agccccacgcg tccggccacg cgtccgcccc cacgatccggt atgaagtttgc aagacgttc 60  
cgtaaccgat gcggatgtgc gtcgctatga gatgtacgcg caaaacatcg aagctacgag 120  
aggattcgggt ggtggattca agtttccga tacaccttcc tccaacaatc aaggtaaacac 180  
cggtgacgag gatctctatt cgtaagagaa cggttcagga atctgtgctt tattgtatgt 240  
tggcttttg ttgaaataaaa aatttgttta gttaaaaaaaa aaataaattc aaaaaaaaaaa 300  
aaaataaata aaatactaca acactt 326

<210> 5261  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-060-Q1-E1-G9  
<400> 5261

ccggtagga attccgggt cgacccacgc gtacgcccac gcgtccggg acgcgtggc 60  
cagaatggac caacgacgaa atattagaaa gagcaaaaca agtacaaaaa ctggtatcg 120  
aaagaggctt ccaatatcgat tgttagcca gcggtgagtt tttaagaata ggactccttc 180  
aaaaccatt tcgtgcagat attatgcaga agaaacctt gaaagaacag agaattgtcg 240  
aaattggttt tggttttgtt atcgatgtgc gttacttgat tcggcaactg ggtgtttcca 300  
aggatcatgt cgtagctatc gatgtagctc cagccttata tgagttggg tacgaactat 360  
ttcaagacaa ggaaggcagtg gaatcttggt tccatgtaaa gagtgttggg gatgaggatt 420  
tcgtgag 427

<210> 5262  
<211> 428  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-060-Q1-E1-H11  
<400> 5262

accggtagg tattcccgcc tcgaccacg cgtacgaaga ctgctctgag ttgcctcttt 60  
ctctcttcc ttatcgctgc cgcaaggca gccgacgtag tttcagagga gagatgggga 120  
tatgctcagc aaacccaaca acagcaacag tgccaacaag tatgtaaaca gtatgcatac 180  
tatcagagtc cagtctgcac ttccgttaacc acacagagcc catactggac ccaatgctcg 240  
aagactgtgc aaacctttgt cccaagccag tgcaagtactt atacccaatc tcctacatgg 300  
acctattgca gcacctacac caccactagc gtaccatctc aatgcagcaa ggccgtgact 360  
acttatactc aaacctgctg tgcttatgcc caacaaactt cctatgcagt cagtaccgag 420  
caatatgt 428

<210> 5263  
<211> 410  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-H2

<400> 5263

gggttacggg tcgacgcacg cgtcagccca cacgtccgg tgggccttct ggtggtgatg 60  
ccctggattt agctacgtag tggcaactcc gctgtcttga aagacataac tgcaagtatt 120

aaaaaggctg acataaaaatg gataactagg acgaatctca gtacttgtct gaattctgca 180  
gaaggaaatg ttacgggtga cttgtcgccg cagtgttagct tgaaggatat attttcattt 240  
aagcttctcg acaataactt taagttggcg tggtaatg atgccttgg ttttagttt 300  
ccaggcttat cctttgttat tactggtaat cgtatattct gtagacgctc ggacttgaat 360  
gaaacggaag cattggagtc ctgctttcg tttatgaaga tatgcccacg 410

<210> 5264  
<211> 381  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-A11

<400> 5264

cgacccacac gtacgaaata ttttatgccg ctatcgaca gaagagtgtt gtgggagtgg 60  
acgagtgcct attcaataac tatttattat tcgccttatac aagggcctt ggaaaatagc 120

gaacgggtat atattcacgt gggaaaagat gggtggaaac atgtttggg aacattttg 180  
atgaacaagt gggatacttt cttcgaatat caagtctcg acgtgctcta ctgtactcaa 240  
ctagactttg tatttaccga tggaaaccaa atatggata acaaccaaaa tagagattgg 300  
catattgtat ggagagagca aagagtccctc aagtatttcg actgctgttc aaaccatcca 360  
tcgaacacctt ttggcaatga g 381

<210> 5265  
<211> 303  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-A12

<400> 5265

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tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag aagccacaag 120  
taaacctgca gcagcagatg ctacaaagac gacagaaaag tctggtccgg aagccaagtt 180  
gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgttcct gttatgtttt 240  
gtgagttctg tttgatagtt tccagctatt ctttggtag tgaataaaga gaaaattttt 300

tat 303

<210> 5266  
<211> 455  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-A4

<400> 5266

gtaccggcta cgaattccca gctcgaccca cgctacggta ttctacgtg gggttgcgtc 60  
tcaacatgtc ttttttgaa acgtatacag tcgaccctgc ttccaaacag aaactcagta 120  
acaaagacaa gtaaggccaa ttgggacatg agagcacggc cgagttacc gctgggaccc 180  
tgaaaaggaa gaagaaccta aattggttac ctactcgatt cctctcaaag aatgcggtcc 240  
catggtgttg gatgccttat tcaaaataga gaatgaagt gactctactt ttgtatTTT 300  
aaggtcgtgc cgagaggaa ttgtgaaag ttgtgcgtg aatatacgt gaaagaatcg 360

tctggcttgt ttaactccgt tagcacgacc caaaggcagac agttactgta tatcctttac 420  
cttatatgta tggttatcaa gatttggtcg tggat 455

<210> 5267  
<211> 388  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-A8

<400> 5267

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gtgcaacacc ttcttgaga ggtggggttc tcggtttatac ctcgagtacc tgtgtcggtc 120  
ttcagtaggg cttttcttctt cttttcttcc ttctctctct tttcttctac tccttcggaa 180  
tttctattat gacgcccgcct tagactctct tctttctact tccttctctc gttaaacctt 240  
cctctttctt accttttact tcccttctct tggggcgcta ctccacccag cattctctct 300  
tctcttcttg ctcccttacc tcttaccctg attccgttcc tcttcttaac cttttctct 360  
tcttttcgg atttcttttc tttcatgc 388

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<210> 5268

<211> 415  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-B10

<400> 5268

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actcaggagg accgctattt gattctcgag gaagactgat tggcgtaat tgtcaatag 120  
cttcaccccttcc agggcggtt gctggatag gtttgctat tcctgtggat accgtgaaga 180  
aagttagtggaa acaaattatg cagttggc gagccattcg accttcgttg ggaatctttt 240  
ttgccccggaa acaacttggaa agaagggtgg gtttggagaa aggtcttttgg attctttatt 300  
tgcgacccaa tggcctgca gagaaagctg gtttattggc aaggaagaga gaaaaagggtt 360  
caggacgatt gatcctggaa gatatcgta ttggtataga gaagcagcca gtgaa 415

<210> 5269

<211> 420  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-B11

<400> 5269

aattccggc tcgacccacg cgtacgcca cgcgtccgag aagcggtggc tggcataaa 60  
agagctatgt cggaagagtc agacaacgaa ggcgtggaga tcaagttaga gactgcacct 120  
catgatcctc gcttccggac tactaatcaa gccaaaggact gttggtcgag atacatcgag 180  
tatcacgctt gtgtgaaaca aaaaggtgaa gaggacagcg agtgtcaaaa gtttaagcga 240  
tggtacaagt cactgtgtcc tatggaatgg gtagaaaaact gggacgaaca gcgtgccaac 300  
ggtaccttcc ctggtcccgt gtagttgtac tggccacgt gggcccttt ggagtttaac 360  
tgacctgttg tcggattgtt ccgtatggct tttttgttc aataaagttt tatgtggtag 420

<210> 5270  
<211> 251  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-B12

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<400> 5270

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ggtgtaaagg tcgagtagta gagtaagtgt aaaagggaaa ggaaaggaga gaaagaggaa 120  
agggatgaaa tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt 180  
aaatgaggcg agaaagcata cgaagtgaaa cggatttagga acccgtgttag tctatgcagt 240  
aaaagaaaaaa t 251

<210> 5271  
<211> 264  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-B5

<400> 5271

caacccacgc gtacgaacat catcaaatgc caaaggagg aaagaaaagat tcttcaaaga 60

aagaagccac aagtaaacct gcagcagcag atgctacaaa gacgacagaa aagtctgggg 120  
ggaaagccaa gttgaaggga actggtgcaa agaaacaata aaaagttgac tatgcatgtg 180  
cagtcctgtt atgttttgtg agttctgttt gatagttcc agctattctt ttggtagtga 240  
ataaaagagaa aatttttat attt 264

<210> 5272  
<211> 255  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-B6  
<400> 5272

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gtacgttgta gcgacagtca tcgaaagcga cactttggaa ataatggaaa gttgtgtcta 120  
tggcacacgc agaacgggac atcttccaca atgttgccta gtatacaact tcaacatcat 180  
aaatattcac ctcaatacgg aatttttca atctatccag atcctatatatt accaccacgt 240  
ccacttgggg ttcca 255

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<210> 5273  
<211> 271  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-061-Q1-E1-B9  
<400> 5273

ccgggctcga cccacgacgt acgattgaaa atgtcaagtc gaagatacaa gacaaggaag 60  
gtattcccc agaccagcaa cgtttgattt ttgcaggtaa acagttggaa gatggtcgca 120  
ctctctcaga ctacaacatt caaaaggagt ctactctca cttggtgttgcgtttgagag 180  
gtggctgtta gtgagttat cctgaagttt ttttctgct agttgtttgtt ggtttgaata 240  
aaaatttgaaatt ttgattcgta a 271

<210> 5274  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C11  
<400> 5274

aattccggc tcgacccacg cgtacgagag aagaaagaaa agaagagaaaa agccgtactg 60  
aagaccgaca caggtactcg aggagaaaagg agacccaaat taaggtgaga gaatggacga 120  
taaggaacta ggcaaaagga tatggtatct gcggtagaac atatgaaaga agcagcaccc 180  
actgttttagc aaaaacacag cactctgcag aaaagagaaaa atgtaaagta tagagtgtgc 240  
ggcctgccaa atagtagaga agaaatcgat gaaagtgaaa gcgagtaaaa gatgaggtat 300  
agagaatggc ggtcctaacf gtaaggatcc aaaggtagcg aagtaaatag acgtttgaaa 360  
ggcgtccagt atgaaaggag aaacgagtgt agcactgtct agtcgtccaa ctcagcgaaa 420  
cag 423

<210> 5275  
<211> 322  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C12  
<400> 5275

gtacagctac gaattccggg ctcgacccac gcgtacggc tttgtgaatc tcaggcaaca 60  
ctgacgtatt cttagcctct ttttggggg cctagtcatt tctttgtcag gtgtagaact 120  
ttgttgaaca tacatatgcc tgattggggg ttatatcgc ctgggttgc caaggaaaca 180  
ttcagagctc agcacgcacc tggttcctct ctgggttgc caattgttg ctccatataga 240  
ctgagaagca atcgatttgc ttcatgttgc gacagcagag tttagaagact atgattgttgc 300  
gtttacatgg gaaagggtttt cg 322

<210> 5276  
<211> 373  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C5  
<400> 5276

taccggctgc gaattccggg ctcgacccac gcgtacgggg gaattgggtt tgattatcgc 60

cttggaatgg gaatacctga tatgtggatt gatctagtga ccaatttcg agatgaagat 120  
tgggatatgg gaagaatggt gtatgggtg accaacacaa gatggaacga atatactgtt 180  
ggatatgtac aaagtacgta tcaggctctc gttggagaca agaccttgcg atttcgattg 240  
atggatgccg agatgtacga caagatgtcg atatttattt ctccaaccga tcgaattgtt 300  
cgtgaaattt cttacacaa aatgattcgc cttataacgt atgctttggg aggtgaagcc 360  
tatctcactt tta 373

<210> 5277  
<211> 390  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C6

<400> 5277

taccggctaa cgaattcccg gctcgaccca cgcgtacgcc cacgcgtccg acttttgaca 60  
actttcctgg ttacatgaag tcttatatacg atgttaggaca aaaagtacta agcaggcgca 120  
gctcaccaag tcgaagtccct gggaaacggg gaaaatctga agaaacttga gagttgaatg 180  
tcgatgtata gacggccact aacggccacg acggtccgca gtctcgtaaa gaaatagctc 240

actacttgta tgaattgatc acctattaga tacactggaa tgaacagtct tttagttgtg 300  
ttctcgaacc cgagtaccga gcaattattt attaaaaaag tcctcaggta atggctacac 360  
caaagcttcg tttgttagac caagaaaccc 390

<210> 5278  
<211> 192  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C7

<400> 5278

cccacgcgtc cgccccacgca tccgaaaaacg tcatgcagta gcctataacct tctgctgcag 60  
tcaaaacaga gtacgtggac cagggcaagt tggtatagac cctgtaagac atacaacaag 120  
tcctcatgtc acttgacgtt ctgtttaggg aatacgatct tgctaccgag tagttactac 180  
tgcagataca tt 192

<210> 5279  
<211> 448  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-061-Q1-E1-C8

<400> 5279

tacccgttagc gaattccgg ctcgaccac gcgtacggaa caaccacaat ataatatatt 60  
ccatcgcat cgagtagaga tagaatacga acctctttat agagagttt gtttaggtac 120  
gacgatttg tcaccttgg gctgnggtat attatccgga aaatacagtg ggaagaat 180  
tcccgaaggt tcaagattat ctctggagaa gtacaagtgg ctgaaagata ctgcatttc 240  
agaaagagag tggcaaattt aaaagacgga tcagttaaag ccaatagctc aagaactggg 300  
ttgttagtgtg gctcagctgg ccatacgctt gttgcagcc aatcctaacg tctccaccgt 360  
tatcacagga gctactacgt tggaacagct ggaagaaaat ttcaaggcag tgagtattgt 420  
tcctaaattt acacccgaag tcatgagc 448

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<210> 5280  
<211> 387  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C9

<400> 5280

aattccggc tcgacccacg cgtacggcct tgtcagtcat caagtcggat agaaaagttt 60  
tgactgcaat tagtatggac acttttcta atactaataa tagtactaat aataatggtg 120  
acgatacggaa ggaagtgact ttggagttt accagcaact caacgacgat gaagtagaca 180  
cgagtccaca acgttcaacg ctcctcactg gtttcaccc ggaaaagact cttcactcg 240  
tttcttctcc tactagagaa ggatatacgtt cagggttgca tattttttt cccgataaaa 300  
ttctttcttc tcgtcacgag gcaggagaat actctagttt tacgctggac gacaaaagtg 360  
tgcagtccacc tctgttacat ctcctc 387

<210> 5281  
<211> 420

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-D11

<400> 5281

aattccgggc tcgacccacg cgtacgaaag gaaaggagag aaagagtgga agaacatgaa 60  
agcacagaag aatgttaagaa atggtagag taaaaaccat aaaggaagta aaagcgggaa 120  
tctgagagga ggaaagccag attggaactg agaaaaggtc caaacaagag aagtcagcag 180  
tggggaaaat tggcaatgt acagggaaatgatgcccagt aatgaggagt ggagtaaaca 240  
aaaaaggaaag taaaaggagg gaatgaaggg aagttatggc aaaaacacgt gccagcagca 300  
gcggtaaaac gtgttagca agcgtagagc agaagaactg ggtgtaaagg tcgagtagta 360  
gagtaagtgt aaaaggaaaa ggaaaggaga gaaagaggaa agggatgaaa tgcagagatc 420

<210> 5282  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-D12

<400> 5282

ggtaccagtc acgaattccc ggctcgaccc acgcgtacgc ccacgcgtcc gcccacgcgt 60  
ccgagagggtt ttaccaagtc tgattacctg gttgacgctt tattacgttag tcacactgaa 120  
ggtgagagac aaagggttgc tagagaacaa gaaaatactt cacagtatgg gtcaggtcgg 180  
aatggaatgg aaccttcttt tgcagataaa tatgaggttc cagtagat tcaagacaac 240  
gattcctcac cggtttctgg tgaagaatca ggaaaggaac cacatgttat tcctcgccag 300  
caagtgaaag attcagagtt ttcaagactt ggacagcaat tatctgaaag agcttggggc 360  
tctttgaagg ctttgcttt ttcattttc tccatggacg ttgcacagta ttatttcgt 420  
gaatatctac 430

<210> 5283  
<211> 411  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-D9

<400> 5283

aattccgggc tcgacccacg acgtacgccc acgcgtccgc atggaacgta tcatgaaggc 60  
acaagcttg cgtgattcgt ccttggcaat gtacatgtca tcgagaaaaga tcatggaaat 120  
ttatccgaag agtgcgcagg tgcaagaatt gcgtcaccgt gtggaaagcag ataagtca 180  
caagaccgtg aaagacctgg tcaattgatt atttgacact gcattgtga ctccggatt 240  
ctctctgac gatcccaacg ttttgcctc tcgtactcat cgcatgaata agttcggtct 300  
tagcttgac gaagatgaag tcactgaaaa gatggaggaa gatttacccc ctcgcgatga 360  
ccgagcaaga aggaacatct gcaatggatg atctacacta gcccttggac t 411

<210> 5284

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-E10

<400> 5284

gtaccagtca ggaattcccg gctcgaccca cgcgtacgca agaatggttt ttctctcgta 60  
tttgctgcag tggctgcagt ggcttgctc gtttctcttc ggaatagaaa gcgtcgaaat 120  
actcaacaga ctatgtctgt ttcgaacgag gcaatgaacg aaacttttg ttttgaatat 180  
tctgttagaa acaagtcttc tgtctttca gtttcctatg caactacgac aagaaatacg 240  
ggagggagac taaagattat atttcgttgtt gttactcgag tgacttttagg aacagacttg 300  
gagaagagtt gtatatttcg acgagttct tcttttaggtg aagggaaaaa agtacaaata 360  
gaccctgaca agttacatgg gttgatgcag ctccatatctc ttttgaagt ttcttgatt 420  
ataaga 426

<210> 5285

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-E11

<400> 5285

aggtaccagt tggaaattcc cggctcgacc cacgcgtacg cccacgcgtc cgcaacgtgt 60

acagcaattt ttagagcctt ctgtttggtt ggagtttca ccactatcat ccttgtgtga 120  
cgcttatcaac ttgggtcaag gcttcctga gtggaagcca cccaaaggta taacggaagc 180  
tgcatacgaaa gctacgagcg acccaagttg gagtcagtat gcacgttcga gtggtttaca 240  
gtctttggta tcgactattt gtaaaaactta tgccgcctctg ttgcaaagga ccattgaccc 300  
ttttaaagaa gtttgtgtga ctgtgggagc atcggaaagct atctttctag cttgtcagtc 360  
tttggtagaa cctggagacg aggtcatctt tgtggAACCT gcattcgata tatatttcgg 420  
tgctgtaat 429

<210> 5286  
<211> 380  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-061-Q1-E1-E12  
  
<400> 5286

gaattcccg gtcgaccac gcgtacgggt aaacatggtc cgcttcaaga tgagacagtt 60  
gcaaagattt ccaagaaaca tggaaggaca cctgctcagg tattgatccg atgggtctta 120  
caacgtgggt gttccgtat tccaaagagc gtaaaagaaag aacgtatcaa ggaaaacttt 180  
gatgttttat tcgaatttag tccacaggat atgaaggaat tggaaggcctt agataagaac 240  
ataatcctca atcatcaaaaa ggaatattgg ggttcaata ttcacgcttg agagagtctt 300  
tgtcgtacaa taaacaaatt tcttgtgtt gctggcaaaa aaaaaaagaat agggaaagaga 360  
caagaaaagt aaataggaag 380

<210> 5287  
<211> 282  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-061-Q1-E1-E5  
  
<400> 5287

taccggctac gaattcccg gtcgaccac gcgtacgcca caacatgcaa caagacgagg 60  
atgtggaatg cttccgatt cagtcacaaa cgactagtct caaacgcaat aaactaatca 120  
acgatccagt tcagggacag gtggagttgc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180

aaaaaaaaaaaa aaaaaaaaaaa aacaaacaaa aataaaaaag aaaaaaaaaa aaaaaaaaaac 240  
cacagaaaaa aaaaaaaaaag gggggccacc ggggaggaat cc 282

<210> 5288  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-061-Q1-E1-E7  
  
<400> 5288

gtaccggcta acgaattccc ggctcgaccc acgcgtacgc gttcttgtca gttccaataa 60  
ggaagaggcc atccctgcga atcttcgatt ggtgtgctt gcgttcgttg cctcgtgccg 120  
tattgaaaca aaaactctgt gttgtttcg tgctggaga ctcactttt tcgttgctgt 180  
agttgttcta gtgaaactca tagatggcag ctgtgcttt tgaagacgtt ttttctgttag 240  
cagaggttga tatggtaaag gaccccaagg atccttctcg caagataaag gaaaagaagt 300  
ttgacaaagt ttccaggata ttatgtcacf gagaaaatta tcaaaccgaa ctcttgctgg 360  
acataaatag cgaaatttat cctattcaag agaacgaaaa gtttgagatg gttttagcgc 420

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ccacactttc gtttagacggc cgac 444

<210> 5289  
<211> 367  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-061-Q1-E1-E8  
  
<400> 5289

taccggcagc gaattccggg ctcgacccac gcgtacgatt ttggattcca accttgtta 60  
tactttgcta agctgttat tcctactgat ctttctacac acaccaacaa ctacatacat 120  
gtattgcgtg cgagaagccg ggagcgggag atatttatgc taccatatcc aaagaagagc 180  
tatactctcc acttgcctac aatcttctat aagaaactaa acctttcgt caccctgatt 240  
caacaacggc tgctgatgct cctgtccgtta acccttgtgt caaacaccaa cagtattgct 300  
aaaacttaca gactcacggg tttctgcaaa atccactcgg gtggaaagga tttccatgaa 360  
ccccact 367

<210> 5290  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-061-Q1-E1-E9

<400> 5290

aattccggc tcgacccacg cgtacggcc tcgaatggag ctgcgaagct attcctttgt 60  
tggcacatat gaagcagctt ttagccgtta caaaagctac cacttgaaga aagagtgttc 120  
tataaaagca agatacggtg caactacctc gtcacctact cttagaagtc tgttgtactt 180  
gagaaatana atggaagaaa gagaccaca tgataagagt ttcttctcaa ggcttttca 240  
ctcaaggcctt agatttgtta gacgatgtgg aaaagcattc gtagcagctg taccattat 300  
ccccacccaa cttgttagaga aaagtctgg tgtatagtgg aacaagttt tgttcgaaga 360  
tataatgctt gctaacacaa agtttgatag atatgtcctt ccagatattg caat 414

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<210> 5291  
<211> 383  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F10

<400> 5291

aattccggc tcgacccacg cgtacgcgga cgcgtgggg ttgtattgct tccctcgaaat 60  
caaaaaagagt ctgccgtata cgaaactaac cgaataataa gtttgcttga aaaattgttt 120  
gatactgctt taactcgccg ttcctttga ctataagaa gtgtgaagca ctaatttata 180  
agaatttgtt tatttggaaa aaactttatc cataacgcaa aaaaatggag attggactct 240  
gtaaaaagtac tctttgtaga ttttgaata cagaaacaat cgcatcgac atatgttgc 300  
tttgcag atttgtatgc cgatcaaatg ttcatgtaaag aattgtcgat cactattcc 360  
aatttttgca taggataagt taa 383

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<210> 5292  
<211> 412  
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-061-Q1-E1-F12

<400> 5292

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acttttggt gcaatgctca agcgcttatg ttgaatgac atagcggatt attaaaaaaaa 120  
atcctccgga tattaaggag aataaccaat ttataaacca ccaaattaaa atttccaagg 180  
acaaaaggta accccaatcc taacaaggtg aaaccaataa taatccaatt caaaaaaaaaatc 240  
ccatctctaa ggaacagaaaa gaagacctgc ctgctcaaac tcgaacaaaa cgcacacaaa 300  
gacattccac tggaacacaa tgttacagtg cttagaaaaa gacacgaata gtctccccta 360  
ccatacacga tatttgtgaa ccatttggaa ttgtcttcag agaaagaaaa ag 412

<210> 5293

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F3

<400> 5293

aattccgagg tcgacccagg cgtcagccca cgcgatccgt tcacttggtag aggttagtt 60  
acaccatgtc ggatctttgt ttcaacctgt cttaaccct tggcagtaaa aagacgaatt 120  
ggaagcaagc tagaaccgtg tgaccaggaa atggagtcaa ctcagtgaaat gcaaggacaa 180  
gaataggcga agattactct gtttacttg cttggtcag tcgtcgatccgacaacta 240  
tggttatattt gagcaagaac acaattatcc tcagcaagtgc ccgaccaagt ggaaggaatt 300  
ggtaaaggat gttcatcgat gtttggat tgcttgata cctggaaaga aacccatatac 360  
ggtggcactg tcggacttta tctacgcaac agcaagttgt ttacaacacg gtataccctt 420  
ggaactattt aaagattcgc tgaaa 445

<210> 5294

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F4

<400> 5294

aattcccagc tcgaccacc cgtccggtgg tgaaaacggt ggtgccttg gcggacaagt 60  
atttagaaga aggtttcgag ttggctatcg atgttcgcca tttgtacggt gtcaaggaac 120  
gctattcga tatctgtgga ttaggcggac gtttggaaagc tgctttgaat tgcttgcggg 180  
agatgagtcg cgatccccag ttacctttc atattcctcg aactcgaggt tgtttctatc 240  
gagcatggc acgatatatc gtagaaaaag gcacttgtt aggaggaata gaagaagcat 300  
tgcaagatat gaaatcttgt caagtacctt ggaacgagcc atgtgtgttgcagctattt 360  
gtatgtattc cgagttggaa tatccacaac caagcgttgg atatgttgcc gccggcgggt 420  
gtcgaacgct tttggttacc tat 443

<210> 5295  
<211> 326  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F5  
<400> 5295

taccggctca cgaattccgg gctcgaccca cgcctacgcc cacgcgtccg gtgtgtgtat 60  
gtctggaaat agagacattt gataccggaaa cccttataacc tctgttaagta taaagactac 120  
atccccacca actggcacccg gggccaaagg ataatgtaaa aacattctac cttatatcag 180  
aggtagtactttagat tgggtggattt tttggccaca gtaatccaca accaacatac 240  
aggtagcatt agaactacag cactaccagg gtcataact aaccaacaca ttgaaacgct 300  
gtctaaaggt atataaacgg ttataac 326

<210> 5296  
<211> 420  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F6  
<400> 5296

taccggctac cgaattcccg gctcgaccca cgcgtacggg ttggacggag caagcaagaa 60  
aatgtgggtg gttggtctag aagtactaat aatagtgggt gagacatcgt tggtaagata 120

gtttttcaat tccgttgtga ggagtttagg agatttggc ttggaaaaca tatgagacag 180  
tggataacaac tagtaacgag gtgttggcac ttgaggaggg tcaaggccc acccaactcc 240  
ttgccgtgga gcagtacaga agtgccttgg agtcgtcggt tttggataa caaccttgca 300  
tttttatcta cgataaaacta ctctcaaagc attgttgtgc ctcaattcaa taaacttgtg 360  
gaaacgagtg aacatcggtt ggacgagttt ccaggtgtca tccagtctcc ataactgggg 420

<210> 5297

<211> 317

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F7

<400> 5297

atccccggct cgaccacgc gtacgcccac gcgtccgccc acgcgtccgc acagatttag 60  
ttgcgtgcca agaattatga agaagctgct cgtctcgct ctttggtgaa gccattggaa 120  
cgtaccagtg tgttagggatg gcaaacctat gctcagatag aaagtgctca gggtcatttg 180  
gaacaagcct atcattacta tttgaaggct cttgagttgg atcccaacaa tgtacttagtt 240  
atcgaatgtc tggcagaatt ggaagcgaaa aacggtaatg cttatgaacc aaggagtatt 300

tttagaaaag ctattga

317

<210> 5298

<211> 400

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F9

<400> 5298

gtaccagtag ggaattcccg gctcgaccca cgcgtacgaa tcagacgagg ataccgctg 60  
aacttaagca tatcattaag cggagaaaaa gaaggcaagt agagggcggc ccgagaaagg 120  
agagggcgta agacgtgata cagagtagga ggaaaagaga agagagctag aaaggaggtt 180  
aaagaagagt aaaaggacta gaagaggtac ggaattcacg aggaaggagc gtgaaggaag 240  
gaggaatccc aagtaatcga ggaagaaaaa gcttcgggtga aagcgtgaac ggattttgtt 300  
cacactgccc gtcaagttct ggaagttgtgc taggaataag caggagaagt agaagaggt 360

aggaaaagaa gaaaggaagt gaagacgtaa gacgtaaaaa 400

<210> 5299

<211> 333

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G1

<400> 5299

acgaataaca caactattcc ttatttcgc aaaacttgc ctttcagtct aaagatgtgg 60

cgtccttgc aaaaatcagc atactttgc gtccataata atgcgcaaac caaagactat 120

cggcaagagc taaaacaagg gcaccaacaa tcagtgtaac aaaccctcga atggttcga 180

ctatatacaa attagaatga aaacattcaa tcaacagacc gttccaagta aacacacaca 240

ctagaaagcg ctgatacaca aaatgcgccaa aaaacgacaa atagtcctgt ttcactttcc 300

cctgaaagct ttctgtcaa ttttgtccaa tga 333

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<210> 5300

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G10

<400> 5300

gaattcccggtctgacccac gcgtacgccc acgcgtccgc gtcacgagag aaagagcgag 60

agaggttatggagacggag ggataggtaa gtaaatcga ggcgacctgg ttttttttc 120

catccccacgt tggtagcggtt tgtatgtaca ctcgttggtt gtattgcatt gttgtggttt 180

ctattacaac tggctattgc caatccgcaa tatcgtagtt ggaaaaaaga gtggatagct 240

atcgttggcgtcgatagg tttggagaa ggattgctat ttatgttgcatacagtggaa 300

caaagtttat gaactagggt tggtttccc tggtgttgcggacaggtga aatattttcc 360

tggttgcttg tctcactcgctcgatagg ttgttaataa attgccgcta gcct 414

<210> 5301

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G12

<400> 5301

gaattccgc gtcgaccac gcgtacgcct gctcctccac ctatggatta tattaagaat 60  
tctggaggc ttcacaatga tatggcaatt catgacttg atatgcacg ttttatgacg 120  
ggaagtgagt gtgaagagat tactgcttat ggagcttgc gtgtggatcc aaaaatagct 180  
tcagaaggaa acgatatcga tactgccatt acgcttctca agtttaagaa tggtgcttt 240  
tgtacgattg acaattgtcg tcaatcacct tcgggatatg atcaacgagt ggaagtttt 300  
ggttccaaag gcctcggtcg ttttggAAC aactttccca ataatgtctt tattgaagat 360  
gcgcagtcg ttcaagaag tgatctccc tttaacttct ttatggatcg tta 413

<210> 5302  
<211> 449  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G3

<400> 5302

aattcccage-tcgaccgcg-cgtcagccca-cgcegatecga-aagaggcaaa-tacggaaag 60  
cagtaaaaga agaaagagaa aggaaaaaac tgagtatcag gaagaaaaga gggagtagat 120  
gagggaaagaa agatcaagga ggttaagagt agagaaggag taatgtaat gaaagcagga 180  
aagtatttga agaagagagt gtaaagcgcg tacctttgc ataatgtccc agcgagtgaa 240  
agaggaagca aaaagaaaaga aaaagcccg aagccaagat aaggtatcaa agtaaagaaa 300  
gaaggaaaag gagaagaaga gagggtaggc ttagaagcag caaaccagag agggaaagcgt 360  
taaagcaatg aaagaaaaga aatccgaaaa agaagagaac aaggttaagaa agaggaccga 420  
atcaggtaa gacgttaggg agcaagaag 449

<210> 5303  
<211> 447  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G4

<400> 5303

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gcgcccactt gtcttgta caagacaaga aagttctca gcagctata gactgaatag 120  
ttcgaagctg acggaagagg agaatgtggc tatttatgga aagtgtaca acgaacactt 180  
tcacggacac aacgttgtat actgtgaaag taaccattcg gggccagta catccagata 240  
ctgggatggt agtgaacctt agttcgttga aggaagccat aagagaactc attgtggagc 300  
cttttgcata caagaatttgc gacttgatg ttttgcattt ctgcaaattt ggtattccta 360  
gcactatgga gaatcttagtt tgtatcatat ggaagaaatt attcagtcgg ttcaaggact 420  
tgcttacga cgtagttgtt cagaaaa 447

<210> 5304  
<211> 389  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G5  
<400> 5304

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ggtattttgtt aaagaagaat gggaaaaaaaaa gttgtctcaa gtacaagtgg ataggaggaa 120  
cctcaacttg ttgggtatca acggggtcgt gatggaaagg tacaaggatg ctgcagaaaa 180  
gttctccgaa gaaacggat tggatcctgg tgtggaccta aatactatac cagacagaat 240  
ggctattcga actgctgtgc aacaaggaga tatccacaaa gctagcgaat tggcaacga 300  
cgtcagccct ttgatattgg actccaatcc ttgtctgttc tttcatctgc aactgcacat 360  
actaatagag cttattcgac agggaaata 389

<210> 5305  
<211> 438  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G7  
<400> 5305

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gtcaaaagga gatagtgaac tatgtcataa gctattttttt gaaaatccta gtgctctgac 120

aaccctacaa cgccatatgc gcccggcagga gtttcctgcc gaatatttg acttggcacg 180  
aaaggtttc catgacttat caggcaatac aatttcaaac caaggagaag gcgaacgaac 240  
agtcttccaa ttacaaattt cacttgcttt tctaaagctt gagctgcaac tgccaaagtg 300  
gtatttgaa aggccggcagt tggaggcgac ttttcgatt gttatcaatg aactgctgag 360  
taactcaaca actatcggtc gcattctgac acggggaaac gctgtgcaag agcaacaaca 420  
ttgtacatta tgtgaatc 438

<210> 5306  
<211> 429  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G8

<400> 5306

attccgggct cgacccacgc gtacgtgata ttctttcga ccaacgctca attgaaacaa 60  
ctatttcaag gctcttcaga gacatttagat atttcttatg tattcttgtc aggtatttagt 120  
gccggatgtt tagcgtgcgg tattatccac tcctatggat gtgatcaaga ctcgactcca 180  
atctgccaat tctccttatac gaggtattat cgattgtttt gttcggacat tgcgagaaga 240  
aggattggc aaattctttt caggttctat tgcaagagct tgtattgtat ctcccttatt 300  
cgaaattgct ctcttgtttt atgaaattca aaaaagattg gcgtcttcat tggacaacta 360  
gatctgcaca actacaatcc acacatacga tacagccatc atctcctaca gatattacac 420  
gagtggaat 429

<210> 5307  
<211> 384  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G9

<400> 5307

aatgccccgc tcgacccacg cgtacgaaa ggaccacaca tctattatgt ggatagtgaa 60  
ggcacgagat tgaaaggtca aaagtttct gttggttctg gttctaccca cgcttgggt 120  
gtgttggatc aaggttagca gtgaaatatt tccgtgaaag aggcctgtga acttggaaaga 180

cgttccatct atcacgctac tcaccgagac gcatttagcg gaggctatat taatgtgtat 240  
tatatcggtc ctgatggttg gaaatttata agtcatgagg atagtggatt cgataagcat 300  
tatcaatacg ccacagaaaa agccacgcaa caacaacaac aaatgagcat atcttcaa 360  
aaatttcacc gtttctttt gcat 384

<210> 5308  
<211> 422  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H11

<400> 5308

ggtaactagtt cggaattccc ggctcgaccc acacgtacgc ccacgcgtcc ggggaagtta 60  
tggcaaaaac acgtgccagc agcaacggta atacgtgtgt aacagacgta gagcagaaga 120  
acggggtgta aaggtcgagt aatagagtaa gtgtagaagg gaaatgaaac gagagaaaga 180  
ggagagggat gagatgcata gatctctaga gaaaggcatg aaagagaata atggaagaca 240  
cagtaaatga tgcgagaaag catatgaagt gaaacggatt atgaacccgt gtattctatg 300  
cagtaaaaaga aagaatgagt aagaaacaag ggagtcatc caccaggaa gtaaaggcgc 360

aagaaagaaa ctcagagcaa ttgacggaa tcggaaaaag gggtgatca cgtaaattaa 420

tc 422

<210> 5309  
<211> 426  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H4

<400> 5309

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caagatattt atcctgtgaa catgcgaag gaagaagatg aaggaacctt gtttggaga 120  
tgtccagatg atatttatga tggctatact agtaacgttc cagaaatcc gtggattcta 180  
tgtactttag gaatggcgca atattattat gagttggcag cagagtggtt gaaacatgaa 240  
aagattgtca taggaaagtg gagcaaagac ttttcagac atttgagggt tatgcctcct 300

ccttctcctc ctcaatcttc tatatcgacg accattactg gaaaagccga ttggtattta 360  
tgtttctgcg ctattagaag aaggagatcg cgtattgaat gctattcgaa agcatacagt 420  
tccttag 426

<210> 5310  
<211> 332  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H5  
<400> 5310

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caattgttg gatgtcattc gatattttag tactcacttg tatgcttcatt aaatacactt 120  
gatgcctaag ctttggcaa aacaaaaaaaaaaaaata aataaaaaaaaaaaaata 180  
aaaaaaaaaaaa caaaaaaaaaaaaaataaa aaattaaaaaaaaaaaaataaaat 240  
aaaataaaaaa aaaaaagggg ggcccccaa aaggatcaa tcttattaac cttcaatgc 300  
aacttaataaa cccttcaaaaa atttcaccaa aa 332

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<210> 5311  
<211> 370  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H6  
<400> 5311

aattccggc tcgacccacg cgtacggcag tttcacctg taacctacga tcttcctac 60  
ttgcctgaac ccatcaaaca aagtattgtg ggtgctgctc ttggaaagttt atttgcac 120  
gcactttgtg gttcagtcg ttgtttgaa gccaacaaag gacgtaacgg tgctctcatt 180  
tctctgtac gcagtcgttt cttaattgct acttgtattt cttggctcta tttgaacgat 240  
gtttgtgtgg gaaaagaaga atctgttcc actttattac ccagttgtcc acttggcaag 300  
aactttgatc acaactttgt ttggcactt gtatttagtag tcatcaacgt attacgtca 360  
aaaggtgcac 370

<210> 5312  
<211> 342  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H7

<400> 5312

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tgggaaaagt atcggtacaa catccttgt atgagggtca aaagaatacc gcagaatatg 120  
agataagaga gtacgggagc ttaagaatag ctgaagttca tccttcagac tggactcaag 180  
aagagaatgg ctcggcatac gacttgact cgcaaggcatt tcgagtggttgcgtcctaca 240  
ttggtgtgtt tggagaagcc aaacacacag atagctccaa cacgcaagtt aagatagcaa 300  
tgacagcacc tgtttatca cagccatag ggtccgtgga aa 342

<210> 5313  
<211> 442  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H8

<400> 5313

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acgtcgaaag cagagtttg tcgtcttcga gaagaactga aaagtgtaaa gtatcagaat 120  
ttcattttagt aaagctggag taagcaatca tgagtggagc tctgtgtatg aaggtaactcg 180  
cctgtttcat atgggaacta tacctgacaa acgcggaaat attcatgttt ttgatcttcg 240  
aatgatggtc tctggctcg aggatggatt taaagttgtt ggactatatg cgagacgggc 300  
caagaaacct cttcaaaac agctcgaaga tggaatgaac tcttgggaca tggtaggaac 360  
gaacctcagt attaaaatgg atgatggaaa ctttggaaagc gaaccggaaa gattgctgtt 420  
gatggattca agagattca at 442

<210> 5314  
<211> 405  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-H9

<400> 5314

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aagccctcct tttggtccgt tttgaaggat tccataggaa aggatcttc caagatatcc 120  
atgccagtaa ccttaatga acctaaatcc ttttacaaa ggatggcgga agatgtggaa 180  
tacagcgaat tgctggataa agcagttact ttagaggatg agtttgcatcg actgttata 240  
tgagcgcca tggctgttaag tcattatagt tctactgtgg gtcgaaccgg aaaaccttc 300  
aatccaatcc taggcgagac gtatgaattt tttcttccag agaagaattt gcgctttgtt 360  
agcgaacaag ttagtcatca tccacctata agtgcttccc atgca 405

<210> 5315

<211> 211

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-062-Q1-E1-A11

<400> 5315

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aagaggaagc gaaacgtctt cgaacgctgt ggatgtgaaa aaggaagtag caacaaaagg 120  
aataattttt gttggtcatg tccataaaag ctataattcc aatagcaact gtactcaatt 180  
tcgatgaagc aaaataaaacc acttttaat g 211

<210> 5316

<211> 215

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A12

<400> 5316

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ggtaccggac tagaattccc gcgcgcaccc acgcgtccaa aaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa aaaaaaaaaac aaaaaaaaaa tgaaaaaaaaat aaaaaaggaa aaaaaaaaaa 120  
ataaaaaaaaaac gggcgccgc ccaagatgga tccaaagctt aacgttcctt gcatgccact 180  
tcacagctcg tcaaaagcgt cacctaattt caatt 215

<210> 5317  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-062-Q1-E1-A5  
  
<400> 5317  
  
cccgccccga cccacgcgtc agcgaactac gccaagttaa ggccgaacaa gatgcaaagg 60  
atcgcagggtt atttggaaat atgtttgcac gttaggaca aattgaagac gatattcata 120  
agaaaatcaaa cgaagaaaacc aaggccaaag aaatcactgc ctcttaatga gctcaactt 180  
ttttatggc agttaccata taaagaggat ctaacatgtc gtttagttt tacaacagag 240  
tactttggc agttacctgt gataccaaaa ttggactca agtcgtacgc tcttgagta 300  
gtaaacattc cactagtgtc cggttatatt cgtgcttcc atctatatat aagttacttg 360  
cctataatgg aaaaaacttc caacaatata tactcggtgc tataaaatac ttttatgaac 420  
attcttcgtc c 431

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<210> 5318  
<211> 413  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-062-Q1-E1-A7  
  
<400> 5318  
  
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tatatagtcg atggaaatgt gatattggga gataggaatc catccaccaa gcatcatctt 120  
attgcacgt gtgagaattt ggtatgtgcata ataagagaac agtctgttt tcgagttgg 180  
aaacgaatga atcaaatacg agcagaatat gaaatatttca aatggaaac ggaagcaacc 240  
gttggattat ttcatgcgtat ggagttgcata cttgtggaca ttatccaagc aactcgacaa 300  
caacaataac taggaggagg aacaagaatgt agcaatatat atcgaccatg gaccaataga 360  
ttgactactc gtgaccttt tcgtttgcgtt gaatatgtc aagatataattt ggg 413

<210> 5319  
<211> 443  
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A9

<400> 5319

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aaccagtggc atagacaacg atatccaatt gtggacgccc agttctcgcc ccaatgtatt 120  
gagtgaatat gatatggata agcgagtgaa taagaatatg gaaaagttga atgaaattct 180  
caaaaagaccg cattccgtcg gcaaatagtcc agaagtaaga tatttgcgtg ttccttatcg 240  
tttgtactgc taatgttgag ttgcaataga cttttgcgtca tgtcattcag aacttgatga 300  
gactagagta tcttcgacct caagattatg aaggcaggttg cactattcta tagtcagtga 360  
acatttatga cttgtggat caagtgcgtg aatttatatta tgagaaaaaa gattttccag 420  
ataaaaggatg attatatttt tag 443

<210> 5320

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B4

<400> 5320

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acgaagcttt ttgaccaata tataaataact tataaagagt cagggtggtg tatagaccag 120  
cagaacttgc aaataataag agtgtgggt aatggcgcaa gtgggacaac ttacgaagga 180  
aagtatcgag atataaaaagt tgcagtgaag gcttattctg caaagatatt aaaggaggat 240  
tttgcgtacg ttcgtaacga aatggagctt ctggcacact tgtcacaccc taatatttt 300  
aagttttatg gtatgggtt tatgacaaac cccttcgctg cttgcctcggt aacagaactt 360  
gccccaaacg gagaacttgg caaggcgcta tatcccagat ctggtataaaa catctttca 420  
aagct 425

<210> 5321

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B6

<400> 5321

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ttacttatacg acgatttggg aaaattggag cccgtgtggt ggcatggtag cagttcggt 120  
agagtgtgtc gaacgccat ggaatgttga gtcgcaagca tttccacgaa agcctacaca 180  
tcaatccatg cgaaatttggaa gtggcgggtc gctttaccacatcataaccacatacactgtg 240  
gatttttaatc attaaaaagg atccttgcgt ggcttgaatt ttgtttcttt aggtagaaca 300  
cattataaat tggttcagaa tttaatttac gatgtgccat atgagggtac agatggctgt 360  
ttggcttggg gaagctgcct gtaagatcgt atttaccact taggaaacat agttcgcaat 420  
gttattcaca c 431

<210> 5322

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B7

<400> 5322

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ggctgctgtt gccatatcgat tggttaagcaa acatgggagc ctacaagtat atgcaagaat 120  
tgtggagaaa aaagcaatct gacgttatgc gcttttact ccgcgtccgt gcttggaaat 180  
atcgacactt gccttcgggtt caccgagctt ctcgtcccac tcgtcccgac aaggcaagaa 240  
tgcttggcta caaagcaaag caagggtatg taatctacag agtgagagtc cgtagagggtg 300  
gttaggaagag accagttcca aagggtatcc aatatggcaa acctaagaat cagggtatca 360  
cacaactaaa attcaagaga aataagagat cagttgcaga agagcgagct ggaag 415

<210> 5323

<211> 301

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B9

<400> 5323

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gtcgctatgg ggccaagttt gcagcatatt gtagaagaat atgaccacg gagacccaac 120  
gactttgaga ctttgtgag agaaagagag tggagaaaaag cacaacaagt ccagtcaagt 180  
tttgacagt gatacatatc tatatgtata gagagagaga gagagagaga gaaaagttt 240  
cagctttt tatgtcgagg ttgtatgaaa aactatggag gatgaaaaca cttttgcgc 300  
c 301

<210> 5324  
<211> 390.  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C1

<400> 5324

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gttggcttggctt gaaaaacttt gatcatacgc catcagaaaag tgcttctttt ggtgtacggg 120  
aaagaaaaacg aaaggaacat gttgataaaa catcaaagac tcccaagtaa aacacctcaa 180  
ggagaccggtt ttatacctaa tcgaaatatg atgaatattt aagtttctcg acttcatcta 240

caacaagaaa ttccctggaaa gaaaaacaaa caacacaata ataccttca agatgcactt 300  
tttagaaagta atagtgaatg gagaaagaac ttttttcat catcgctgtc gtcaacttgt 360  
cagccgtatc aaagtgcctt ggcaagttca 390

<210> 5325  
<211> 321  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-062-Q1-E1-C11

<400> 5325

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ttccgttgca tatgtcacgt gacatctaa agtattaatg ccagttagta caaattctaa 120  
ttctctatcc aaaatacagc cagaacccaa ctctgcacgt aaacatgtat agtactcg 180  
gggattttt cctttgctaa gcctgggacg agtcagtagc tgttggcttg aatgcctgcc 240

tctccccc ttcgttgc gcagaattgc tccgcgtgta attctctata aaagtaaca 300  
atggagtgtn tgaatgtann a 321

<210> 5326  
<211> 432  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-062-Q1-E1-C2  
  
<400> 5326  
  
cgggtcgagc cacgcgtccg atctgaaagg cgaattcaga ccagctcaga catatcgaaat 60  
atataataaca tggatgggtg atccgcttcg aatgttgcaa ctccacgtta tcaccaacgt 120  
tatcgaagga gaaaatcttt taagaagggt ttccggataact ggaagtttgc taaagatgga 180  
acttggaaaga atttcacaag agtatccatt tcttgttagcc aacgtaagag gcaaaggac 240  
cttcttagcc ttgtatacgc ctgatggaga gactcgcaat caacttttat tcgaaatgcg 300  
tcaaaaagga gtccaaatttgg gaggttgtgg tgaaaataact gtttaggctaa gacctccact 360  
gatatttgac caacaagatg caaatattct actagaaaacg ctacaaacgg tggatggaa 420  
attnaaqaac ca 432

<210> 5327  
<211> 311  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-062-Q1-E1-C4  
  
<400> 5327  
  
aaaagtcaac tttgtttcg ggcaaacacc cgaaaaataat cccgttggtt tccgcaattg 60  
ccccgtgtga agtttgtgcg gttttgtga gcatcaacaa ctgtttaat aacccaacct 120  
tggtacccct caattcaaag cggaaagcgt attcgcgcaa tttagaggcaa cttgacaatg 180  
aagacagacc cttttgaat ttggtaaac cacttcgtga ccgtccaatc agtttaattt 240  
ccccaaatga tgaaaatacc aggattcccc attagttgga tagtacatta aatagtttt 300  
gagcttttagg t 311

<210> 5328  
<211> 137  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C5

<400> 5328

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acaaaaagaa taaaaaacaa aaataaacat gaatacaaaa taaaaggcac atcaacagtg 120  
tcacccaaaa ttcaatt 137

<210> 5329  
<211> 338  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D11

<400> 5329

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atgccaaagg gagaaagaa agattttca aagaaagaag ccacaagtaa acctgcagca 120  
gcagatgcta caaagacgac agaaaagtct ggtccggaag ccaagttgaa gggactgg 180  
gcaaagaaac aataaaaagt tgactatgca tttctgtt atgtttgtg agttctgttt 240  
gatagttcc agtattttt ttggtagtga ataaagagaa aatttttat aaaaaatcac 300  
tgtaacatgg cggcgagacg tggcgaaagc agttgga 338

<210> 5330  
<211> 296  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D4

<400> 5330

aagttcaaca actttacaaa caaaaaaaaaa cattggcggt gcacgttcaa ccttaactttg 60  
caacgttacc ctgttaaacat agtatggcga aaacccaaca atagtaaaat aaaaacattc 120  
caagtcagct aaatacacca attagaacac ttcataagat accaacgcta cccgtttac 180  
cccaattccc aattgttttc cgaaaacttg tggtacaaac cttccttagt gaatgtcctg 240

gaacgaatcg gaaaggcacc gaccttggc ttaatcttca atggcgact aagttc 296

<210> 5331

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D5

<400> 5331

ggtaccaggc caggaattcc cgggcccacc cacgcgtcag cccacgcgtc cgtaaaaaga 60  
catcatggaa gagcaacttc cccaaggcac gctttcttagt gtgggaaaaa gagactacta 120  
aaagaactac aagattggtt ggtgggtgaa cctgtacctg gaatgtccgt ggagagacca 180  
gagagattgg acttgtggta tgtcaaagta gttggtgcbc aagatactat atttatggga 240  
gaagaatata ttctgcgggtt tagtttcca cgagattatc ctatggaa gc tc cccgaagtg 300  
gtttttcttc caccggttcc tagtcaccct catatttata cgaatggaca tatttgggg 360  
aatgttttgt atgatggatg gagtcctgca ttgacagtta cttccgtttg tttgagttata 420  
ttgagtagtgt tgagtagtgtc aacagaaaa 449

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<210> 5332

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E1

<400> 5332

ggtcaagaaaa tccggggccga cccacgcgtc cacgcacttt aggaatggta agttatTTT 60  
gtctcgagca tttgacttta tttaggattt tgcatatgga aatactttcg aaaccgatgc 120  
gatgggcaat ttcaactgggg aaataagtca gcctattgtg aatgccagta gaaaggcaga 180  
tttactgcaa atgttaacga tgcaagaaag aataagtttgg aacaagtaa ttgcagtagg 240  
tcatggaccc gtatctttag aaatgttgc tcttgcagga atggcaatat ctgtcgatca 300  
gccggaaagcc accgatataa aatttgagc acatttatgt ggaaaaagtc tcatgacagt 360  
tttatattta ttgggcattc gaggaagaga cgctttggaa atgtcacgag atactttta 420  
ggctcttcca tgcgtct 437

<210> 5333  
<211> 239  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E12

<400> 5333

caggtaccgg actagaattc gcgggccgac ccacgcgtcc acccacgcgt ccgattggc 60  
aatgtacagg gaagtatgac ccagtaatga ggagtggagt aaacagaaaa ggaagtaaaa 120  
ggagggaaatg aaggaaatgtt atggcaaaaa cacgtgccag cagcagcggt aaaacgttg 180  
tagcaagcgt agagcagaag aactgggtgt aaaggtcgag tagtagagta agtgtaaaa 239

<210> 5334  
<211> 453  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E7

<400> 5334

aggtaccagg tcatgaattc ccgggccgac ccacgcgtca ggtagaggag caagaagaga 60  
agagagaatg ctgggtggag tagcgaaaca agagaaggaa agtaaaaggt aagaaagagg 120  
aaaggttac gagagaagga agtagaaaga agagagtgtt aggcggcgtc ataataaaaa 180  
tccgaaagga gtagaagaaa agagagagaa gaaagaaaaag aagagaaaaag ccgtactgaa 240  
gaccgacaca ggtactcgag gagaaaggag acccaaatta aggtgagaga atggacgata 300  
aggaacttagg caaaaggata tggtatctgc ggtagaacat atgaaagaag cagcaccgac 360  
tgttagcaa aaacacagca ctctgcagaa aagagaaaaat gtaaagtata gagtgtgcgg 420  
cctgccaat agtagagaag aaatcgatga aag 453

<210> 5335  
<211> 386  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E9

<400> 5335

cgccaggtac cgatctaga attcgccggc cgaccacgc gtccacccac gcgtccgccc 60  
acgcgtccgc ccacgcattcc ggaggcaaat acgggatagc agtagaagaa gagatagaag 120  
gagtaaaact gagtatcagg aagatgatag ggagtagatg aggaaagaaa gatcaaagaa 180  
gtaagagtaa gagacggagt aatgtgagat gaaagcagga aagtattga agaagagagt 240  
gtaaagcgcg tacctttgc ataatgtccc agcgagtgaa agaggaagcc caaacaaga 300  
aaaagatgta gccatgttaag acccgaagct agttgatcat atgcagtcca ggctaaattg 360  
gcgctgcacc actatctgtg gcagaa 386

<210> 5336  
<211> 376  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-F8

<400> 5336

aggtacaggt caggaattcc cgggcccggacc cacgcgtcag cccacgcgtc cgcccacgcg 60  
tccgcgcct tttttttttt cgtcgcaata aaaccaagtc gtcagtcagt gcaaaaaaaaa 120  
aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 180  
aaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaagaaa 240  
aaaaaaaaaaa aaaaaaaaaaaa aaaacagaga agtcagaaga aaaaaaaaaaaa aaacgaaaaa 300  
agaccaaaaaa aaaaaaaaaaac aaaaaggcaa tgaaaaaaaa acccaacaga gagaaaaggc 360  
acagaagaca gaaaaa 376

<210> 5337  
<211> 355  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-G6

<400> 5337

gacccacgac gtcagggtag ataaaaccaa aaaagatatg ggaggattct ttccgggtgtt 60  
gtttttttt gcggttgta ctggagttgg tgtgtatgtg gcacaaaaact atgcgttcc 120  
caacgtgcag tggtggttgc aacaaaccac ggatattgtg aggagaatgg aaagacaagc 180

acgcaagtct caagaggaaa agtagtgaaa gaagaagggtt ttttttggc gccttgagga 240  
gaagaaacaa ggctattgct gggaatgaa tccgtatcca attatctata gatatatata 300  
catatatatg tagcacggtt atttgtggtt cccaactctt tggaaatcaa catgc 355

<210> 5338  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-H2  
<400> 5338

cgggtcgccc cacgcgtcca cccaagcgtc cgaaagagtc ctgagagtca agtcatggaa 60  
gaacttgttgcgttca agaagttgt ggcttggaaat ggtcttatga tgacaaatata 120  
ttggcttctg gagggaacga taacaagttt tgatatggaa atcccaatca caatttgcgtcg 180  
gtttggagtc gattcgatca acatacggca gcagtgaaag ccattgcttgcgttca 240  
caaagcggtc ttctttgttc aggtggaggc actgcggatc gatgtattcg gttttggaaat 300  
gtgacaagta acagtctcta caagacaatc gatacggat ctcaagtatg caacattgct 360

tggtccaaaaatgtccaaaga gtttgtatcg acacacggat attctcagaa tcaaattatt 420  
gtatggaagt atc 433

<210> 5339  
<211> 205  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-H4  
<400> 5339

aaaagtatacgggggta tgcgctata agagacttgc ggtgccctt caatgggtgc 60  
tcctattttc ttttccgggc ccctctttt aaaacgttgg ccgggggaaa actcggtttt 120  
taccggattt accctctttt aacgaaatcc ctttgctcg actgggtttt caccttccat 180  
aggcgcgtgt tttccccct tcgca 205

<210> 5340  
<211> 428

<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-062-Q1-E1-H6  
  
<400> 5340

ttcccgggcc gacccacgcg tcagtgc~~ttt~~ ctaggaagca acgcaacgaa attgttccaa 60  
ttagaaccaa agtaaagg~~t~~ cccgagaatc caaaagataa agcttccaag atgatagaaa 120  
gagaagg~~t~~ t~~g~~tgataag gacgaaggcg ttcgtttagg agttaccatg tcttcattgg 180  
caaagttaaa accagtcttc agaaaggaag gctccaccac agcaagaaat gcctcgcaaa 240  
taagt~~g~~atgg agcagctgct gtcttgctaa tgaaacgttc ggaagcacag aaaagaggac 300  
ttggctgtct gggta~~c~~tctt cgagctttg ctgttgtgg agtggAACCA ggtgtcatgg 360  
gaattggtcc tgctgttgct attccgc~~a~~t tattgaaaag gacaagattg gctgtgaatg 420  
atattgac 428

<210> 5341  
<211> 445  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-062-Q1-E1-H7  
  
<400> 5341

ggtacctagt ctagaattcc cgggccc~~g~~acc cacgcgtcca cccacgcgtc cgcccacg~~c~~ 60  
tccggatatt tatgccc~~a~~ag actctattga tctttgaca cgctctggta ttgactttga 120  
tgagcacgaa cgacatggca tcgacgtgga acgatttgga gagctttaa tatctccgg 180  
cattgtactg aacgaagata tatgttgat ttcgttcat tctgg~~t~~atg actttggcta 240  
ttt~~g~~ttgaag atattgactt gt~~g~~atgagat gccagcagaa gagtctgaat tctttgaact 300  
tttaaacgct tattttccac gttttatga catgaaatat ttgatgatgg cttccgacag 360  
gctttatgga ggcc~~t~~aaata agttggcaga aatcctggaa gtcgaacgtg ttggccaaat 420  
gcatcaagca gg~~t~~cagata gctta 445

<210> 5342  
<211> 398  
<212> DNA  
<213> Cyanidium caldarium

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<223> Clone ID: LIB190-063-Q1-E1-A10  
<400> 5342

ggctcgagcc acgcgtacgc ccaagcgtcc gcccacgcgt ccgcccggat ttggaaaga 60  
tatacgggct gttccaaagg aaaggggaggt tctatgcatt tgtataaaagc ggagaataaa 120  
tactttggag gaaatggaat agttggagcg caagttccgt tggaaacagg tttggcttt 180  
gcagaacaat atctaaatac tggcaatatt tccgttacta tgtatggaga tggtgctgcg 240  
aagccaagga caagtagcag aggctatgaa tatggcagct ttatggaagt tgccttgtgt 300  
ttatgtatgt gaaaataaca agtatggaat gggAACGAGC accgatagag cttcagcaaa 360  
taccaacttt tatactcgta gagatgtcat tcctggta 398

<210> 5343  
<211> 419  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A2  
<400> 5343

cggtcaggca ttccccgggtg gacccacgcg tccgggatta ggtgttggat tcttgaggca 60  
tgtggaacgc tgtcggttac ttattcacat catcaatgga gagtcgcagg atccattagg 120  
agattatgtat gctattcgac aagaacttgtt ttatTTAAT ccagcccttg ttgacaagcc 180  
ggaagtgcatt gttctgaata agatagatct tccacatgtt gcgagtcagtt ttgtacaact 240  
agagacaaag ttgaaagagc gatgtggta ttgtcgagtg atgtcttata gtgcagtgac 300  
tggagaaaaat gttcaacagt tattgcacaa aactgcttt ttgttgaata gtttggaaag 360  
taatTTAGGA agtgtggAAC gcgcacaccat agtcaccaga ccagaagaag agaacctat 419

<210> 5344  
<211> 273  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A4  
<400> 5344

acgcgtcagg cagtcgtaga tttaggaacca gcaatcaatt ctaatacttt gatggttcct 60

tgactattgg caactactat tagttgaggt cttttggac accaacaac agaactgaca 120  
aaatgttgtt tatctcgagt ttcttccca gtagtgat tttcaactt cattctaata 180  
aaggaacaac aacaacaaca ataataaaaa aaaaaaaaaaaa aaaacaaaaaa 240  
aaaaaaaaaaa aaaaaaaaaaaa agaataaaaa aca 273

<210> 5345

<211> 406

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A9

<400> 5345

gtacggtaag gaattaacgg ctgcaccac gcgtacgaaa cttttccaa atatggagaa 60  
gttggatg caagggttgt tggtgaacgt gaaactggtc gttccgtgg tttggtttc 120  
gtatcctatg cagaagggttc ctccgtagac gaatgcattt ccgcactgga tggcaaggat 180  
atgcaaggac gcactattcg tgtgaacaag gcaatgtctc gtgaacaacg cgagagtgg 240  
ggagactttc gtcgcgtgg tcgtggtagt atacggaggt tttcggtccg gtccttatga 300  
gagacgtgaa cgtgactctg atcgtagaaag agatcatgac aggagagata acggccatag 360

tagcccaggt cgcaatggac gttccgcgg tcgtgaagac tttgat 406

<210> 5346

<211> 384

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B11

<400> 5346

gggtcgaggc acgcgtcagc ccaagcgtcc gcccacgcgt ccgcacgcgt gtccgcac 60  
gcgtccgctt ggccgcgcct tactctctct ctctctctac gactacacca gcccaacctt 120  
gctattcactt attagataga aaagacaaaa ttcgatcaac aatagaagtt tcaatggaa 180  
gagtttcctg ttgtaaagac ttgtttcca agtttcctt tttctcgccct tttccaact 240  
ggcgaactgg caggtatccc gctaaataat gaggcttggt gcaaagattt gaaactacaa 300  
gatagatgaa aaaaactctc cgacagtcgg gataataata aacttcgaag agaaggacac 360

tggtatacgg ttccttccaa aata 384

<210> 5347  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B2

<400> 5347

acgcgtcagc gaatgtctcc ctataacctgt tggtgcatga ttgggttact atagattgca 60  
atatacacact gtgcaagcgc tttatgaatt gcatgtttt tgagatcaca caaacacttg 120  
tacactgaat gaacgacgta tgggtactaa ctgtgcattt tgtatagata tcaaggatgt 180  
caaatatgtt atcaactacg atttcccggaa tactatagaa gactatgttc atcgcatgg 240  
tcgcactggt cgtgctggtg cccttggaaa gtccccatacg ttttcactc cggataaaatt 300  
ccgtgttgcg aaagaattag ttaacttgtt gcgagatgct ggacaggaca ttccctccgaa 360  
gttggctcgt ttgataaaaaa cttcgtcctt tgccgtAAC a 401

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<210> 5348

<211> 373

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B8

<400> 5348

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tctttctctc tttccttatac gctgccgcag ttgcagccga cgtagttca gaggagagat 120  
ggggatatgc tcagcaaacc caacaacagc aacagtgcac acaagtatgt aaacagtatg 180  
catactatca gagtccagtc tgcacttccg taaccacaca gagcccatac tggaccata 240  
gctcgaagac tgtgcaaacc tttgtccaa gccagtgcag tacttatacc caatctccta 300  
catggaccta ttgcagcacc tacaccacca cttagcgtacc atctcaatgc agcaaggccg 360  
tgactaccta tac 373

<210> 5349

<211> 399

<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-063-Q1-E1-B9  
<400> 5349

gggtcgagcc acgcgtcagc ccaagcgtcc gcggacgcgt gggtggattt ccagacactc 60  
tttgcagttg ctaggctgac agaaaaccac ggaataggta agaaattcta ttttagacaga 120  
tggagacgca aaggagactt tgactcttat tgaccgtta cgagaattca aagagataac 180  
aaggagatc cttccaagtt ctgggttac tatcaactaca agggtactga cttgaaagga 240  
gaaagaaaaaa tcgaactcgc caattgtaaa ggttggaggt ggcacacact tgaaaaggag 300  
cgcaccaaat tggttgtaa aacaccgaca gttccttagt tggagagttt aaaaaaaaaaa 360  
aaacaaccac ccaaaccaca aaaaaaaaaa aagggcggg 399

<210> 5350  
<211> 347  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-063-Q1-E1-C1  
<400> 5350

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aatattttag gctgttgaag ttccacagag gaatggcgc acaggatgac ctgccacaag 120  
tttcaagctg tgtcgaagcc tgtacggaaa tggcaaaatt ttttaacatc cgtcgggaga 180  
gcgttcagtt ttgttcagag tgacatcttgc agcaaggcca acattgtgga cagttaaggc 240  
gagacatttc gtccatagaa aggctctctg cacgacatca gataaaccgg actggctaac 300  
ggaacttgct ctgtaaaatc accaccttct tggccccgaa actgtgt 347

<210> 5351  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-063-Q1-E1-C10  
<400> 5351

ggtcaggaac taccgggtcg agccacgcgt ccgcggcaagc gtccgcccac gcgtccgccc 60

acgcgtccgc ccacgcgtcc gcccacgcgt ccggcttat tgggggaggc actgtatttc 120  
tgtctaccat tccagccata tactttatgg atcgtttagg aagacgtcca gtgctattaa 180  
cgcttattcc tggagtatcc gttggctat tcattattgg gttttctttt aaagcaacca 240  
atgtgaaggt tgagtgaagg gatatacatt tggggagtag tagtctatga attcttctgg 300  
ggttcttggtt taggtcctac tccttgggtg gtggcctcag aagtatatcc tacttatttg 360  
agaagcactg gtgttaggtat caatgcattc gtgcctatt tggAACGTT taccacta 418

<210> 5352  
<211> 400  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-C12

<400> 5352

gtcaggaatt accgggtcga gccacgcgtc cgcccaagcg tccgcccacg cgtccgccca 60  
cgcgtccgcg ctacaagaat gggacgattc ttaggcaaat ccctatccaa ctttcttcc 120  
taataacaaa gtctgcaatg cttcccaagg aatacagcag tactaaccaa gtccacaaggc 180

atagaaggaa ctgaaaaaaaa ataaacaatg tccacgtccg atagatctgc agaaaaatgc 240  
gatcgatgat agactttta caaggaaaga cagtcctta caaataaatg acactttgga 300  
acaaaaaaaaa aacacaaaaaaaaa agagacaaac gatgaaactg gcgaaaaaaaaa acacaaaaac 360  
aaaggtacga aaactctaaa cacagaaaaac aaaaggggcgc 400

<210> 5353  
<211> 424  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-C5

<400> 5353

ggtacaggtt aggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc ggatcaatca 60  
tgtccttcgc tattcctgct gttgttcta ccggagcagg gctatctttt ggtgtagctg 120  
cttcaattgc aaaggcttgg tctgacctgg atcatttatg tagtggcagg gatagagcgc 180  
tcttgagttt gccccaaagtt ttcaaaaagtt ccaaggacaa gggcaatctt ctcgctcg 240

aaggacaagg ttcttattgaa gccccaggt aagctgagag aattgcaaga caaagagcag 300  
gaggtatccg tagtgtcgaa gatgacgtcg taccagagga acccaacttt ctagcaaagg 360  
ttcccaaacg ggagcgagat gggagagcag ctttcgtcc ttcaaagaag tcaaaccg 420  
ttct 424

<210> 5354  
<211> 416  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-C7

<400> 5354

ggtacaggta aggaattccc ggctcgaccc acgcgtacgc aaggattctc ttcacgacac 60  
agaatggata ctttttaat atttgactcc accagtcaac gattcgggtgt cgctgctgaa 120  
cacgtttatg acgtaaacga gaataccaag ttgcgtttt gtgggaaagt tcgtcacgga 180  
gaatcggacc cggcaggata tgcattgcc gaatatgact ttacggttc caaagaagat 240  
tttccgataa acgttcgtgc acgtgcgata tgaaaagta accagtgcac cggcgtatt 300  
cgtgccaaaa agaagtttga agtggacgaa gacacttctt tattcttctt ggccaaagct 360

tgtactcagg aactaacaaa aggaagttat attattggta aagctggagt gacacg 416

<210> 5355  
<211> 431  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-C8

<400> 5355

ggtaccagg taggaattcc cggctcgacc cacgcgtacg ggctcatgag attgtccaag 60  
caactccaagt ttctccccag ttgcgttctc aagcagtcga tcaagtacgc aagttgtatc 120  
agttttcga tgaaagagac gtgacaatgt tgaaatcaa tccttggta gaaaccaagg 180  
acaatcgttt gtttgtgtg gataaaaaa taagttcga taagaatgcc gagtttcgac 240  
aatccgatat atttgcattt agagatacca cacaagagga tcctcgagaa gtaagagcag 300  
atcaagttgg attgaattat atcggattgg atggaaatat tggatgctt gtaatggag 360

caggattggc aatggcaacg atggatgtca tcaagttgca cgaggtaat cctgccaact 420  
 ttttggatgt c 431

<210> 5356  
 <211> 424  
 <212> DNA  
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-D8

<400> 5356

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 tgaatgaaag agctttgttt cctgaaacag ctcgccagta taaaaatagt gaagcccact 120  
 ctacagtttc actctcagac cgttcaacct cgaacactcc cgtcgcttct ggtgatagca 180  
 actccaaatt gctatcaaatt gcaagtttg aaagacaaga agaagatagg gttcctcctt 240  
 taattgactt tagtgacttg gttctggaga attccgttgc tgagtcagaa gaaccctcat 300  
 gtcccgcttc acctccacaa aaatcactta cagtggagga ggccttgaac tttccaccta 360  
 tgcctacgag ctttcggac ctacacctta aaagtgtctt gggactaaca aatatgctgg 420

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aaag 424

<210> 5357  
 <211> 284  
 <212> DNA  
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-E10

<400> 5357

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 atgaatgcga gtgacttgtc acaaagtatt gtcaactcca ttggttcacg aagaagagaa 120  
 gatagagaat ccgacgac 180  
 tcgaaagata tgaaagatat gggaaataaa gaggtccatc gagattttc caaaaaaaaaa 240  
 aataaaaaaaaaa aagaaaaaaaaa aaaaagaaga aaaaaaaaaa aaaa 284

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<210> 5358  
 <211> 383

<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-063-Q1-E1-E12  
  
<400> 5358

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tggtggcga ctctggttac tggtgcggtt gttattcgag ccgcaacctt tcctcttgt 120  
tggtatggac agtaccacgc tgataagttg agttcggtgg ctccagaact aaaccgggtc 180  
agatcatatg ttagccgctc acctggaact tcactccaaa agatcagaac ttgattcgtc 240  
gtctgcgaca ggaactgctg aagagaaagtg attcttcatc tttgaaagtg attccttatg 300  
ggaagtttagc tcacgtaccg cttttgtaa ccgcggcagc ttcagttaga acgctaactt 360  
ttcaaaaata cccgggtttt gag 383

<210> 5359  
<211> 382  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-063-Q1-E1-E5  
  
<400> 5359

ggtaacttagta aggaatgccc ggctcgaccc acacgtccgc ccacgcgtcc gggtgtggag 60  
aatgccttta gtgaatgaat atttggagtc tttgaagagt aagattgccg acttgagaaa 120  
tggttggtggaa agggctggtg gctccattgc tgccgcctt ttttaagag aattcgtgaa 180  
gcagtctcct tgggcgcata tagatattgc aggaactgta tggaatgaga agcagtcggc 240  
agctacagga tttgggtgttc gtacttttgtt agaaatttgtt gaaagttttt ctcacgaaca 300  
ataaaaaagac acaagcgagg cgccctacat gtgtttttt tttctgcgctg ccaaaaatttt 360  
gaaaaaaaaac aattaacatt cg 382

<210> 5360  
<211> 383  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-063-Q1-E1-E6  
  
<400> 5360

aattccggc tcgaccaca cgtacgccc cgcgtccgcc cacgcgtccg gtggagacaa 60  
caagaagaac gtgaagctgt ggaggctacg agacatatga ggcaacgact gaaaaagtct 120  
gtactaaaag atgagccacc tgagaacagt cctcacgtaa cgagttgct attaaggcta 180  
ccggatggac gaaaagttgt gaggaggtt caagacagt accaactaca agtcgttgta 240  
catttcgtag tttatgaaac gggactatcg gaagatgagt ttcaattgat tgcccttat 300  
ccccgaaagg gttAACCA catggaggct acactcgag accatagcct tattaccaag 360  
gctgcgttga taatacaacg taa 383

<210> 5361

<211> 424

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-E7

<400> 5361

ggtaccagtc aggaattccc ggctcgaccc acgcgtacgc ggacgcgtgg gcggacgcgt. 60  
gggcctgatc gtatgatggg aacctattcc gtattgcctt ctctaaagt atcggatact 120  
gttgtggagc-cttacaactg-catccttcc-gttcatcagc-tggtgaaaa-tggagatgaa 180  
gtgttctgca tagacaatga ggcactctat aatattgcc acaatacgaa aaagatgaat 240  
aatccatctt acagtgacct caatcaactc gtcacccgag taatgtcagg tattacttgc 300  
tcacttcgct tccagggtca gttgaatgca gacttgagaa aacttgcac caatttgatt 360  
ccattcccccc gccttcattt cttcatgatt ggatttgctc ctcttgcagc tccaggaact 420  
caac 424

<210> 5362

<211> 195

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-E8

<400> 5362

cgacccacgc gtacgcccac gcgtccgcc acgcgtccgc ggacgcgtgg gcggacgcgt 60  
gggtggtttc ttgtggcgtg tgtgggtgac gttgttagtg acgaccgtgt cagagacgac 120

gtgtccgtgc atcattcgac tagttccat acggcgagta tgctgtccag gacatatacg 180  
atagagttgc atgtt 195

<210> 5363  
<211> 386  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-F10

<400> 5363

cgcgtcagcc caagcgtccg taagaatgta attggagccc gaagagcgtc ttggaggatt 60  
atttcttcga ttgagcagaa ggaagagtca aagggcaatc aaacccacgt gttgatcaat 120  
agagaatatc ggaagaaaat agagaacgag ttgagctcta tttgtaaaga tattctttcc 180  
atattggagg ataatttgat tccttcccc aagtctggtg aaagcaaagt ggtttacct 240  
taaaatgaag ggcgactatt atcgatatct cgcatgatcc acgaatcagg aagatcgaa 300  
agcatcggtt gaagcatctc tggaagctta caaggcagca agtgagatag cttccaccga 360  
attggctcca acgcacccca tccgac 386

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<210> 5364  
<211> 420  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-F5

<400> 5364

ggtagggc aggaattccc ggctcgaccc acgcgtacga tgattatggg taagtcatcg 60  
tcttcgatgg taggacgtaa aaaggagagt cgacaagaac aatcgaattc tttttgttt 120  
cgaaaccaac tggatcgcaa gcaacgtaaa caacaattgg cagaaatgct acgtaaacaa 180  
atggaaacaac taagtatgct tttgcggtaa aaacagcaac cacaagaaga agaagaagaa 240  
gaagaaagca attgcagcaa cagcgcttct tgaagaattt tcttggtgcg ttggacgttt 300  
gtccaaatgg ccttttgag tgaagtttg ttacgaacaa gaatagcacc gagttggcag 360  
agaaaaagat attgtttctc ctgtcggtca catcataaag ccaaacggta tacgtttcat 420

<210> 5365  
<211> 262  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-F6

<400> 5365

acggtaact ctggcaggt aactgcgagt gcacgggtgg acctcatagt tggcagtagt 60  
tgcacagagt atgagctata cagacatgag gatgtggAAC acacatgctg agatcaatgg 120  
caataactgt ggaacatcct cggtccatata ggtatacaca tgaaccttcg atgattccac 180  
acttgcgacg ttgtgggtgt gcatgtatata ggacgattta cggctcgTTG tggttgtcag 240  
tcatcaaaga cctgagtcgc ta 262

<210> 5366  
<211> 412  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-G2

<400> 5366

ccccggctcgaa cccacgcgtat cgggcagaga taaccctcgaa agaaggactc cctcacgaga 60  
ctgtgacatc ttccacaagag acaaaaagatg aaggcccggaa aacaaagcca aaccgctttg 120  
caattactgg ccacacagag gaggaaatgg atacagagct aagcaagctt gatgacgaga 180  
acaaccggct gcacaagaaaa agattactta cttccacggt ctttggtaac cctaaacatt 240  
ttatatgggt ctttgcatcg tttgcgagca tgggaggaat tctgtatgggt attgaccagt 300  
ctttgataag tggtgctgggt atttatatgc cagttgaccc acacattgac cagaatagag 360  
aagacatgggt tactggattt atgccaccccg gtggagtatt tggggcttta at 412

<210> 5367  
<211> 386  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-G8

<400> 5367

ggtacttagtc aggaagcccg gctcgaccca cacgtacgag acggaaaacg atgttcagaa 60

taccttatat agtctatttc aaagaatgga tcaattggaa caagaaaact cgcggttgcg 120  
gaacaatctg agtcatttag tctctacgt tcccaaccg aaaagtatcc ggttaacgaga 180  
tgacaggagt gaaagggttg tgtgtatcgc caaaaaaagt gtaaatgatt ccacaacact 240  
ggacacttg aatggttcct atctaccaag tagatatctg aatatcatgg atgtttcaaa 300  
tggaaataga agtgtgtgta actttgtgtt ttgaacaca aagatataa ctgtggcaac 360  
taaaaagtatt ttcttttctgtac 386

<210> 5368  
<211> 125  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-G9

<400> 5368

ccacgcgtcc gcccacgcgt ccggactagt tcttcaatgc ctgcggagct tttttggaa 60  
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaggcgga 120  
cgaac 125

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<210> 5369  
<211> 351  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-H3

<400> 5369

gggctcctac catgaaatgg gctttgggg ttgcaggcct gtccgatatg aagcgcccc 60  
ctgagaaaact ttccgtacct caaaacctag cttggcttg tactggagtt atctgggttc 120  
gatatagttt tgtaataaca ccagtaaact ataacttggc actggtaat acctttgttg 180  
gtgctaccgg tatttatcag atttggagaa aagtgaacca cacctatttc caacaaaaac 240  
aagtttctgc taattgattc gctatgagac gtgatggagt gagatatcga acaacttttgc 300  
gtgtgtgaaa tccagtgaaa atgaaagagt tgggttttt tccacaataa a 351

<210> 5370  
<211> 293

<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-063-Q1-E1-H4

<400> 5370

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cgaataattt gcccctaaca actaagaagg aaatcactac aaccaacgaa aattccttct 120  
ccccctccta tccaataactt aatattcgta cattacaatt tgCACCATCA acgtcnTTT 180  
ctacgaccgg atgacctaaa acaaggcgTT ctacttcATC cacatcctct ttGGAACCGA 240  
taaataaagg aacacacatt tccaacgacc tagtcacaca cacacaanan ana 293

<210> 5371  
<211> 421  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-H5

<400> 5371

ggtaCTAGTC aggaattccc ggctcgacCC acgagtccgg ttttgtgtgg ttggctcctg 60  
ttcttcatttG gaaagatata ttctattAGA tactatttt tatgttgta ttggctgtt 120  
tggttgcttG tccatccatt ttgcctAGAC acctgtgtta tcgttgcTCT cctcgaataa 180  
agagcaacgt tgggttcgt ttcaagaaAC gccatcctat ttcaccattt ccagcgatga 240  
ctttatggca aaactggact tggctcgTgg tttccAGTAC attccttat actcctatat 300  
attccgtggT atttccgtta tccacgatac cttatgtttt atttctcagg ggTTTGTGGA 360  
aaaaaaaaAGTC agttcctgtA gtagcaaaaa taaggTTTC ttatTTGCT gtTTTGTGc 420  
t 421

<210> 5372  
<211> 364  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-H6

<400> 5372

ctcttaacta cggtaggtt attgggggtt tggtaaaagt attgccaag ggaaagagtc 60  
acttacgttc atgggtacac gtaaagctcg tgatggggc ttgcctttg caacctctcc 120  
aaagaacctg ggagtatcac ttccaacaaa tatggagcga aatggaaagc gacaggaaac 180  
tgtgttcgg tctgcataa gaaacgaaca gaaaacggaa agcgtcaaga aggaaagtac 240  
ccctctagct gctatgtttg gtgatgactc ttccgaaaca gttgaggaaa catctgtggg 300  
aatgggctc aatagaactg ctaaagaacg aaaatctgga gattcttctt ggtttggga 360  
taac 364

<210> 5373  
<211> 436  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-H7  
<400> 5373

ggtactagtc aggaattccc ggctcgaccc acgagtcagc cgagcagctg ctccctcagag 60  
atggtatgag gaacaatgca cctcatactg ctgggttcca gtacagacct atgaaactta 120  
tcaatgttct caagagaaga agaaggagta cagctatcct tgtcaaactt atgagcaggt 180

ttcaactact taccagtgtg gtcagtagca gtcccaacaa gtttactacc aatgccaaaa 240  
gtataaggag gttactcagc aagaatgcca gtacgtccaa gagtcgtatt gtgtcgagta 300  
tgaagaatgt cagcaagtta cccaggaagt ttctccttca gaaattgtct actacggta 360  
atcttcttct agcagtagtt actactacta gaacacttgt gaaatgcgca aagtcgcaaa 420  
gtaaagtgtt ccttt 436

<210> 5374  
<211> 388  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-A10  
<400> 5374

attccggctc gacccacgcg taagccacgc gtccgatttg catcttttg gactttggat 60  
ttgcacgtgt ggggtgtgctc agtcagaact gcttctcagt tagttacgca atatgcctag 120

tcataaggaa caaaataaaag gaattaaaat atcagctgac ggtaacgcac taaagtttag 180  
cggtattcgg ttggacgtag acggcagttt ggtcaactatg gtggacgcag acgacctcag 240  
aagccctcat gtttaaggaa agcctaagg aaaagtcaaa gctgcattgac caaaaatttt 300  
tcaaaagcta ttatgaggag aataaggact acttttatta tatgactcat acggagaaga 360  
aatgtttct ttctctggaa gttgcacg 388

<210> 5375  
<211> 349  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-A11

<400> 5375

ctcgaccac gcgtacggga caaggaaaac aatccattaa agaatgctcc acatactgca 60  
gatgtggtat catcgataa ttggagtcgt ccctattctc gtcagttggc agcatatcct 120  
gcagaatggt ctcgtgcatt caaattctgg cctagtgtaa gtagaataga cgatgcttac 180  
ggtgataaga atttggtttac tacctgtcct cctatggaaa gttatatgga agcagaacaa 240  
gcgagtggt tgaacttggctt ggaaaacgaa taaacaaaca gggattttcg atgtctattg 300

gactggaaaa aaatgacaat gaaagagaaaa aaactggtac aagaacaac 349

<210> 5376  
<211> 428  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-A12

<400> 5376

gtaacggtaa ggaatctccg gctcgaccca cgcgttaagcc cacgcgtccg gttcgaagga 60  
cgatgcgaaa ttccggaaat ttggcagctg tctatttgc tcccgaagtt attattgcct 120  
gtttgttgtt tttatcgcta tctactctt tattagctat gattgcgttt ttgagaggtt 180  
ttcatgacgt caagaatact gcagttccgt gaactattac ggcaggaatt ggtccacata 240  
ttgcgagttac ggcactcgat tgctttccg ttttgcgttcc agagaagcgc gagtcaagtc 300  
gtgtcgctg gccactggtg tcttgcgttct ttttggatag aaaaacttta caattctcc 360

gttgtactag tggtgagaaa atttggat tgattgcata tagtgaaag attcgatat 420  
gtgtgtat 428

<210> 5377  
<211> 298  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B10

<400> 5377

attccggctc gacccacgctg taaggtggta gtattggctg atgacgtgga ccctatggta 60  
tccgtaatga aagtgcataa ggctccattg gaaagttatg cagatattgg agggttggag 120  
aaacaaatac aagaaattaa agaatgcagt agaacttcca ttgacacatc ccgaactata 180  
tgaagatata ggaataaacc ctcacaaggg tgtcatatta tatggagaaa catgtactgg 240  
aaaagacctt attggccaga gcagtggcaa atagcacatc cgctacttt cctcgtgt 298

<210> 5378  
<211> 435  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B11

<400> 5378

aattccggc tcgacccacg cgtacggaga aaaaggtaag aaagaggacc gaatcagggt 60  
aagaggtaga ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa 120  
ggaaagtaaa aggtaaagaaa gagaaaggt ttacgagaga aggaagtaga aagaagagag 180  
tgtaaggcgg cgtcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga 240  
aaagaagagt aaaagccgta ctgaagaccg acacaagaac atgaggaaga aagaggcaaa 300  
tacggaaag cagtaaaaga agaaagagaa agaaaaaaac tgagtatcag gaagaaaaga 360  
gggagtagat gaggaaagaa agatcaagga agtaagagta agagaaagag taatgtaat 420  
gaaagcagga aagta 435

<210> 5379  
<211> 220  
<212> DNA

<213> Cyanidium caldarium  
<223> Clone ID: LIB190-064-Q1-E1-B12  
<400> 5379

gtcgaaaaac aacatttatt gtggccatg aaagcagaaa ctttgtctgt tctcaggcca 60  
aaaggcaaac tatcatacta tcttaaccct catacgaata ataatatgga gttggacaaa 120  
tcgagcatat actcttacac atttgggtat aggtacaata aggcgttgg tgcgggggt 180  
ggggatggag tctcataata gtaataatat gtcggagtct 220

<210> 5380  
<211> 430  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-064-Q1-E1-B5  
<400> 5380

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tttcgtgtgt tttgccttgt caaagcttga agaccattta tttgctgcta tgtttagag 120  
ggttcgtcag agagtttgt actagtagta ttccatgctt cgtgggggtt gattggctct 180

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ttttacaaca gggtgtcaa ttactgcca atctccacag catcaactgc ctactgggt 240  
ccgcatgtat acatataattt gtacagattc gtggtagaca gaagagtgc gatggttcag 300  
aagtgacagc agacggtag tataacctgta gaggaagcac ttgaaaaggg gtcacgccc 360  
ttgtaaagtt ctacctgtaa gtagttttt ttgcttgtag agaatgcaag tttagtgtac 420  
ccgacaatat 430

<210> 5381  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-064-Q1-E1-B9  
<400> 5381

aattccggc tcgacccacg cgtacggccca cgcgtccgcc cacgcgtccg cccacgcgtc 60  
ccccacgcg tccgcccacg cgtccgcagg aaaagaagaa agagaaagga aaaaactgag 120

tatcaggaag aaaagaggga gtagatgagg aaagaaagat caaggaagta agagtaagag 180  
aaggagtaat gtgaatgaaa gcacgaaagt atttgaagaa gagagtgtaa agcgcgtacc 240  
ttttgcataa atgtcccagc gagtgaaaga ggaagcaaaa agaaagaaaa agaagtagcc 300  
aggtaagacc cgaagctagt tgatcttatg ctgtccaagc gaagtaaggc tgaaccagta 360  
tctgtggaaa aagatttgg aagatggca taaagggtga a 401

<210> 5382

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C10

<400> 5382

gaattcccg ctcgaccac gcgtacggta ctagttgcgg ttgacgtggg gtagtgtca 60  
accaagagtc cttggcacac aaactatgtc cacaacttca taagttgt aagtttgagt 120  
acttgcaatg agctatctag taggaaatac cgaacaagac ttacaagcca agaaaccaac 180  
atatgaagaa ctggtgccg aactatctca actcaaggcg gatttattcg cagaaagaca 240  
caataagaaa ggtagttgaa caagagttga aagagttgaa acagttgtcg ttttctatgc 300

aaactcatat cgaggcagaa gaggagtata ttgccaataa actcaataaa ccgctcacag 360

agttgaaa 368

<210> 5383

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-064-Q1-E1-C11

<400> 5383

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ttgggagcac tattgtgtac ttgttattgt gagtgaaagc gttttgaagg agaattgggg 120  
gtacaagaat ggaatgaatt ggagaagata tcttccttag atacttggaa gcttgtgctt 180  
ggtacaagac aaagagtgg aataatgtta cagcgagtac acaagctgac gagcatctt 240  
tccttttat actcgggcga acaaccgaga gtggactata tcgttgctga ggatgaagca 300

agttggaaaa agttgtggag aggaaaacgc gaggtcattt gatatacttt ggaaggcagct 360  
ttacagaaaa cttgtattgt ggaaaaccag ttgagggagt ggaaaaagaa act 413

<210> 5384

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C2

<400> 5384

gggtcgagcc acgcgtccga gcacaactgg cggttcacga atgttcgct caaggagtag 60  
tccagatatt tatcgatggc gtcctgtatc tgtaactcat tcagctgacc acaaagatgg 120  
ccttaaggat tcttgataa ccaatcaaatt ctttcgaatt tcagaaactt atcgtaacaa 180  
ggacgacatg ctgaaagttt aagttacacc ccacactggc ctaccagggtg gaaagcaagg 240  
acctcgtgcc tctccttggc cagctatgga gaatgtgatg aacaataata atgactggac 300  
ttgttctgct gggaaatgctt cattcgagag gcagagtgct tagttg 346

<210> 5385

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C5

<400> 5385

attcccggtt cgacccaagg gtccgaaaca actcgggata acgagagata gaatggacat 60  
tcttgctgct cgtgaagaaa tactgttgca gcaagtacaa gaaagattcc agagattaca 120  
aagttacacg actcaagtat ccgcataatata tgaaaagcta aaatttccaa tggaagagta 180  
tgaggagttt gcttctcaac actcaaattct ctctttcc tgcttgcattt cttggaaacg 240  
ggaacttggt cgtttagaac aacttgaaaa ggacagacta caacagctt tggatgagag 300  
caaacaaaag ttgcattgcct tgtgaaatga acttcaaattt cctgtttcag aacgcttgca 360  
ttggcaagaa acccttgatg aggaacattt gtctacagga agacttgata ggaagacatg 420  
accaagacat cagtagactg gaatcct 447

<210> 5386  
<211> 357  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C6

<400> 5386

aattcccgaa ccgacccacg cgtcaggtgg tgggtggaa gacgcgttcc aatctccac 60  
gaggctttct acaattgtct ttgttgtgt gttaatatgt ttgggttcg tgcacctcgt 120  
gagtccaaac aagatatctt caaaaggag cttttaaca tgccctgttc tatccaagaa 180  
acgagtatcc ccgtctaaga gagcaactat tgtggcttct tctttggta tgaacggttc 240  
caaaatggaa tctctggcg gtgtcaagta caaaaacgct ggcgttagcaa acgatggtcg 300  
ttgtttcaaa ataaccttatt gtcaaccaag tcagtcgaga gtttacagcg ggaagga 357

<210> 5387  
<211> 386  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C9

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<400> 5387

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aaaagaaatc cggcaaagaa cagaaaaagg taagaaagag gaccgaatca gggtaagagg 120  
tagaggagca ggaagagaag agagaatgct gggtgagta gcgaaacaag agaagggaaag 180  
taaaaggtaa gaaagagggaa aggttacga gagaatgaag tccaaagaag agagtgtaa 240  
gcggcgtcaa taatagacat ccgaatggag tagaagaaaa gagagacaag aaagaataga 300  
agagaaaaagc cgtactgaag accgacacag gtactcgagg agaaaggaga cccaaattaa 360  
ggtgagagaa tggacgataa ggaact 386

<210> 5388  
<211> 407  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-D10

<400> 5388

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agcaacttca atatggatgc aatgtgttga atttaggcaa caaaaatatt gtcgcgtac 120  
acccgacaac tgcccgtaga attgccaagg cgccctgttt cgatggaaat gtagaatata 180  
tcaatatgtc tgcaatcact gcgatgtatg gagcagcaca ttgtgcatct caagtcgtct 240  
atctgacaac atgtccacga tattctcact gacgacgacg acgacgaagc aaagtgggtt 300  
cgatggcaaa acgagatatg cggttcacct aggagaagac aacaagtgcc tactgcttg 360  
gaaaatggat gtactggttg ttgtcgccat catcgcaacc attagta 407

<210> 5389

<211> 410

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-D12

<400> 5389

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cataggaagt gaaacggatt aggaaccgtgtatc cagtaaaaga aagaatgagt 120

aagaaaaaaag ggagtcattc caccagggga gtaaaggcgc aagaaagaaa cccaaagcaa 180

ttgacggaa tcggaaaaag gggtgatca cgtaaattaa tccgatataa accgagaacc 240

ttaccctctc caagaagggtt ttgcacggct gtcgaaagaa cgtgctgtga agtgagagaa 300

cgtacgagaa agccaagtga ggaaaagaag gcaagtagag ggcggcccgaa 360

ggcgtaagac gtgatacaga gtaagaacat gaggaagaaa gaggcaaata 410

<210> 5390

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-E10

<400> 5390

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tttgttgtt cgggttgcataatgaaaact ggcttttat cgcaagagtt cttaaatatt 120

ggcttttattc agaatgtgag aggcgttatac gaacgttgcacggaaaaat aggctgcttc 180

ctttagaaag aacggtaatg aaggaagttc gcaaaggaaa atcaagcgaa ttgctatctt 240  
ccatgtacta ttcgtcacga tgaatatgga ttggcaagag agcgatgttc atcggcttt 300  
caagaagtat ttttggtta ataactgtgt acatacagaa gatgacgagt attcgcaagt 360  
gcagcaagta atctgatatac cttagtagtt gtatggga gtgacacttt t 411

<210> 5391  
<211> 355  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-E6

<400> 5391

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agattgataa gagacttaa gaaactaca caagttagtt atttctttt ttctacgtt 120  
ctaatacg aactgtttt gtgttgtca tacgaccctc ctatggttg tagtgggtct 180  
ccttgtgaga atgatattat gcgttgaat gcagtcatcc tatgccaga agatagtatc 240  
tggaaaggtg gcacgtttaa actaactttt cagttcaccc aggactaccg taggaaaccg 300  
cctacggtca agtttgttc caaatgtac catcccaata tttactcgga tggaa 355

<210> 5392  
<211> 400  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-E9

<400> 5392

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gtcaaggaga tgatacaaag gcggcattgg atgacgagaa agaaattctg aaggaaatag 120  
aactagagat agccgatttt gattctgtga tatcaaacca agagaaggag aacagtgtatc 180  
gcatgaaagg tgatccagta acgcaagtga cacgggtgga acctcgaaaa cgagccagac 240  
accaaaatag aactctccaa ggaacagggaa accgcttac atgaaacgtt tgatgacgca 300  
aaccatgaaa tggttcctaa caagaagagc aggacctgca aagtgaatga agaccatcct 360  
tctacgcaac agtaaccact taaagagaac tttacgatac 400

<210> 5393  
<211> 391  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-F12

<400> 5393

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ataaggaact aggcaaaagg atatggtatac tgccgttagaa catatgaaag aagcagcacc 180  
gactgtttag caaaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg 240  
cggtctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa aagatgaggt 300  
atagagaatg gcggtcctaa cagtaaggat ccaaaggtag cgaagtaat agacgtttga 360  
aaggcgtcca gtatgaaagg agaaacgagt g 391

<210> 5394  
<211> 409  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-F9

<400> 5394

gacccacgcg taagatggaa aatgggtatt gtagaggagt ttgctgaagc atggttgaat 60  
actagtgtac atagaagaag aaggaagcag ctacttgta cgtcgacaac cgaacttcct 120  
tatattctcc tttcacctgc ggaaataaac aaacaagaaa cttctgttcg aaggggaact 180  
ttaagtgttag agaaaccaca gataattgtc ccgggacaca aacaaaatat tgcaaaattt 240  
tacgaaactt gatgatgagc ggtttgagga tatacgtaat tctctgatat tagctcgaaa 300  
tgtaaagttt ccatctggca gatatcgaa ccgttcttac cagttggaca ttgtggata 360  
cccagtagaa gcacttgctg agaagtggaa cgaacagttg ggaaaagaa 409

<210> 5395  
<211> 213  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G11

<400> 5395

gacccaagcg tccgcctta gaatgttatac cagagctca attgccat aacttttg 60  
accacaagca aaacacaagt cgcgctctt tttggaaat acccttgga aggaaaccaa 120  
ttcctggtcc gaatccgttt cctggtccc acaatcctgg cttaaagt tgcaaggcgt 180  
tgcttggtcc ttgaaaattt tggattccgg ttt 213

<210> 5396

<211> 347

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G2

<400> 5396

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gcagctcatg atctctatTT ttttagagtt tcctcgccct attgacatac agcaagtcag 120  
tgaatggttg atgtcttag gagcttgtgc ttttgaagtt tctgagagag atgcgggaga 180  
agaggctgct tggctgcca tagccagtgc acatcagcaa catctacagc agttggaaag 240

caacactgct tggAACAGCA gcagaacatt tcgggttttgc gtttcttcag acgtgtctcc 300  
agagaatttt ctgatggatg ttgcttccgt ttccgagtgg aattcag 347

<210> 5397

<211> 229

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G6

<400> 5397

ggctcgaccc acacgtcagc gcaaggctcg gctcgacgta taatttggaa tatcacagaaa 60  
tggcttcag gttttaaca ggcactctac gactacctgt tggaaaggttc ccaccttga 120  
gtcgctgtt gacgatagct aagcgaactc cagatgcagg tcaatgtcca gataattgtc 180  
taactactgt gaagacctgt accaatttgc tggaaacttcc gcaataactc 229

<210> 5398  
<211> 335  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-064-Q1-E1-G7  
  
<400> 5398

gacccacacg tcagaggcaa ggagaaattt gagtcatcaa agttcatgag aaaaatccag 60  
aatggctta tactattttt cgccccaggac acctgataaa tgagcctgcc aaagggccca 120  
agtcagtaat agttgtatcaa ggtgatcgca ttagttggag gttactaga gcggacgtag 180  
cgaaaatgt ctgtgcttgt ttaaaagtgc aaaatacgat gaatgcgacg ttcgaaatag 240  
ctgggaggaa ggaaacagaa tcgcagtcca atcttcccga aacttatgag gcgcgtttag 300  
ctactgtaaa gccggataag aaacctgagt ctact 335

<210> 5399  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-064-Q1-E1-G8

<400> 5399

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ataattcttg actagatagg ttttagggagg agagagaatc atgaagttaga ggaggtgggg 120  
taagagatga aagaccactg catgaggata aggaatctaa ctgagtaagg aaaataagct 180  
taagcttagtt tggctgggaa agtaaagcct aagaaagagt aaattaggca agcaaaggca 240  
tgagagaagt ataatagcag aagcatgctt gaagagagag aaagagattt cagaaaggga 300  
agaaaagtca gctatagaga acaggtgaag gacaactcaa gaagaggaga gcaccgaacg 360  
atcgaagaag aaagcttggg ggttaacacgt taatgtgggt ttagagaacg tatac 414

<210> 5400  
<211> 390  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-064-Q1-E1-H10  
  
<400> 5400

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gtgcttgcata ctagcattcc acgactgttg gaacgggtgt aacggagcgt tgttttacc	120
agagggaaata gacagaccccg agaacgcagg ttacacctca ctgaaaccat atctgatgcc	180
ttttaactagc cagtttccct gtataagtat agcagatctg ataaacctca tgtgctgtaa	240
cagccttgaa gtttcttggg ggacctgatg taccggata ttatggacgt ttggacaggg	300
gtgttcctga tccctctggt cttattcctg aaccaactat gagttgtct gcttttatca	360
attctttcaa cgcttattggg ttttagcaaag	390

<210> 5401  
<211> 333  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-H3

<400> 5401

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atctaacagt attcaactcg tccctttqca gtgctacgtc ctcatcgagt tccacaagca 120
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gcgggtatca gggaaagcagt ttacgttcga gtgttgccag tcgctatgca tatactttat 180  
tatcccttgc tcgaaaagaa cgtattttgg agaaaagtcac caacgatgtg aaggcagttc 240  
gcactttga gtcggatcat ccggagttca agcgctttg acaacatcgc acagttccaa 300  
aaggcgaaaa gcaacaatta ttgcgcgagt tgt 333

<210> 5402  
<211> 342  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-H5

<400> 5402

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ttgactcctg tggataggag aacttcccg agttggtacc ttgaacgttt 120  
gtttatcttc ccaagaaaaca gttggggact tgaaaaaaga gatatggaaa cggttgggtt 180  
atcactggcc ttttgttattt ctgtatggag ggaagctgggt gagtacggaa gaaaggctct 240

tgcgtttgt	caacggttcc	tttctacaag	caagacctt	gggtgttttg	gaaaggaggg	300
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<210>	5403					
<211>	348					
<212>	DNA					
<213>	Cyanidium caldarium					
<223>	Clone ID: LIB190-064-Q1-E1-H7					
<400>	5403					
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gaagagcggtt	gggctacttt	ggggatttag	gctgttctgc	gtagaggagg	ctttaaagga	120
caaaaacttaa	cactgatgct	tgttgtcaa	gtaattttac	tgtctcatct	acctcttgc	180
cctttatttc	gttgaatgtt	gttcactttg	gatttcaatg	ttttagggtg	atggacgatc	240
ctagtgcctt	ggtaaacaag	agacaccaag	gaaatacagt	tcctttcttc	ggttttcact	300
ttatcaacct	tgactactga	ggagcctatt	tcttgaaat	ttgcctcc		348
<210>	5404					
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<212>	DNA					
<213>	Cyanidium caldarium					
<223>	Clone ID: LIB190-064-Q1-E1-H8					
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ggaagttagaa	agaagagagt	gtaaggcggt	gtcataatag	aatccgaaa	ggagtagaaag	120
aaaagagaga	gaagaaagaa	aagaagagaa	aagccgtact	gaagaccgac	acaggtactc	180
gaggagtaag	gatccaaagg	tagcgaagta	aatagacgtt	tgaaaggcgt	ccagtatgaa	240
aggagaaaa						249
<210>	5405					
<211>	372					
<212>	DNA					
<213>	Cyanidium caldarium					
<223>	unsure at all n locations					

<223> Clone ID: LIB190-065-Q1-E1-A8

<400> 5405

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caaagtaaag aaagaaggaa aaggagaaga agagagggta ggcttagaag cagcaaacca 120  
gagagggaaag cgtaaagca tgaaagaaaa gaaatccgaa aaagatgagc ataaggagga 180  
gaggagttag tacgataagg ttgagggaga ggataaggag gggagaggag atagggataa 240  
gttaagagaa gagataaagg aagagaaggg ataagagagg agagaaggag aggaagggaa 300  
gtaaaagagg gagtaaggaa tgtaagtaag gaagaagaac gaagaaggag tangaacgag 360  
agagaacgaa aa 372

<210> 5406

<211> 366

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-B10

<400> 5406

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gaacaatgac gactagtact acaacgagac ctaaattatt gaaagttagta gtcctaggag 120  
atagcggta acgggtaat cttaaacgg atcgttctt aatcaagttt agtggggaa 180  
aaacctctct cttggagcgc tttgtcaatc gtcgttttag tcagcgtac aaggccacta 240  
ttggagcggta tttcctgacc aaggatatgt ttgttagatga tagaaatgtt aatttgcaaa 300  
tatggatac aacgggacaa gaacgatacc aaagcctcgg taatgcgtt tatcgtgg 360  
ctgatg 366

<210> 5407

<211> 344

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-B12

<400> 5407

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tacgataaga aagttgaaaa cattcactac tttcaccaga accttatgtc accaagcg 120  
atcaaagaat attggAACGc tgTCGACCCt gtagtagccc tcgtgatgg tttcaactt 180  
acttccagcg ttagtattgt atcagtgaac aaatatgtga cccagttggg tttcgttc 240  
atgtgtactt taacttgtat ccacttcatt gtcactttt tgggcttagt actttgttct 300  
tacgtgggtt tattcaaacc anagaaacta gacctattt cagc 344

<210> 5408

<211> 339

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-B3

<400> 5408

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aacccaagta ttggatgga agaacgtatt tgaaggaaa tatatggaa gcagtgttgg 120  
aatttcaacg aaaacctgga gataccgggt cggcagaagt acaaggtaag acaacaaggg 180  
aaaccatggg atggatggat gtgaccacat gtgtgtgtgt gctctctctc tactagttgc 240

ggtgttggacc aagagaatgg aagcattgga gaaacaatgc acagaaacat agatgatccg 300  
aaagcacaat atttgttggta tcactttact tcgaggaga 339

<210> 5409

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-B7

<400> 5409

aggtaacggt caggaattcc cggctcgacc cacgcgtacg gtttccagtg gatttatctc 60  
atcgtagtt aggaatagaa gattggattg gataacaaca cgaatatgca aagttttatt 120  
gttagaatgc aagttgcga tagttttat agatggactc tccaaacgact gcaaaagaag 180  
acgacgaata gtattctcg gggttgctt tcgaggagaa ctcctagtcg tcctgttttt 240  
tttcgtcaag tattttctg tgcacaagac aatcacccaa cgtatgaaga gtttgccaaac 300  
gtgttgagac aaggaatatt tccttggaa caagacgacg aaacccagga acgaggtaac 360

cctcagtgtt ccctgtgtca aggagacttt tatattcctt gtgaaaactg tcaaggcgtt 420  
gggttttgtt tt 432

<210> 5410  
<211> 409  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-B9

<400> 5410

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taaaaaactgg ggttagatggg ggcctaattga tgaagttggt tctcttaatt ttctaacgaa 120  
tcaggaagtg ctgagaggtt ttcagtcggc tcgattttggt gaggtgtata cgttgggtga 180  
gttgatagcc aacccaaaag gagagccggt atttcctggg agaacagggtg cactcaagtt 240  
tatgacacaa gataagagct actataaaaag tggcaagtcg cagtcttac ctgggtggtgg 300  
tgaatactcc gatgatggca tcaccatgtt ctgcaaggc tccacacagt atgatgccat 360  
gggtcatttc tggtatgtt atcatatctg gaatggatat tctgcccatt 409

<210> 5411  
<211> 381  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-065-Q1-E1-C12

<400> 5411

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agagattgca agaagataat attttgaata gaggactatc acaaccagga gatgtatttc 180  
tgtgcttttgc caacatccag ttgttgggtga atgcagaaag agctattata ggaaatatta 240  
cttgcggcaga aagtatcgaa ttgtgtcgat tattagctgg acatatacgat gtttgggtcg 300  
atgaacattt ggatgacttt cgtttggaaag ctatcttggg agcactattt gtttgggtcg 360  
attgtgagtg gaagcgaaaa g 381

<210> 5412  
<211> 445  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-C2

<400> 5412

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agagcagtag ccgacggtgt tttcaaagca gaacttaacg agtttctgat gcgagaattg 180  
tcggaagagg gatactctgg tgtagaagtg aaacccacgc cggtgcgaac ggaaatcgtg 240  
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actgcgttgg tacagaagcg attccgtttt cctgaaggaa cagtggaaact ttatgcggaa 360  
aagggtgcgg atagaggttt atgtgccatt gcgcaagcag aaagttgcg gtacaagttg 420  
ttgggtggat tggctgtgcg tagag 445

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<210> 5413  
<211> 315  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-C5

<400> 5413

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acaaagacag aaaaacgtcg agctgctta gagcgcttc ggcagaagag agccaatcgg 180  
tgaaaaatcg gtacgagtgt tcaaagaagg tggctgacgt acgtcctcg 240  
atacgatgtc gttttggtaa aaaaggaaga ttccaaaaac ttgggttggaa aactggtgac 300  
gcaacaatcc caact 315

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<210> 5414  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-C9

<400> 5414

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tataaacttg cgaagaagaa gtatgaaaaa gtgataagcg atttggagtt tgatgtgcgt 180  
aacaagtccgg acctaatac gggacaaaag caacaaggaa aatccattct gttcagaca 240  
tacttgaatc ttgcagcttg tgaagaaaag ctggcaatc cgaacggtgtt attgaaacaa 300  
tgtaacaagg gattggagtt ggattccata aatgtaaagg cactgttttag aagagcctct 360  
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<210> 5415

<211> 298

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-D10

<400> 5415

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ttcaatcgga cgtattggat gctttatgg aaatgcattt tacaccgat cgaatgatat 180  
tctctgtac gaatgtcgat catcaagaga ttgttcagtt ggtagataaa ttctttcga 240  
gtatgcaacc attcctcgaaatataattc gtccaaaggc aatataacc ggtggaga 298

<210> 5416

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-D3

<400> 5416

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tccgggagca aaaagataca aatttgctg atattttat gaactaagtc aggtgttttc 120  
tcatgttagcg acgttgcaac aaaaaaccac gacaatccac gacgctgtgg aggtctgaac 180

gaacgagaaa atggaagatg agatggctaa ggtgtggcta ttcaccgacg caaataatcc 240  
caagttctgg acgcgtaaat gagaatgctc agtgctgcat attagattcc tggaattata 300  
catcaaaaat aattgcaact taaattctca aaatttacaa gtattcttgc accgacgaat 360  
actgcttgcg ttagtttgc ttgaagctca cccggaaagt tttcggtcgg catgaagcag 420  
tgaagataag tgaatcttt gttg 444

<210> 5417  
<211> 402  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-E10  
<400> 5417

ggtcaggaat atccgggtcg agccacgcgt ccgcgaaatt ctgaagaaat gtgtaataat 60  
tgtgtaacgg attcttagtg aagaaagcaa ggatgcaagt agaacctgag gaagaagatt 120  
ttttaccaga agaagaagaa caagttgaag aacattctca accgtcacat ctggttcaag 180  
aacaaccgga aacgaccaag aacacagaga acgaagagga atccgatgcg gttgaagacg 240  
aagagattgt gcgtctacag aaacagaagg acagggagag atttgcttcc ttggatgaag 300

aggaacagga acgctacgaa tattatcgta tggagattt ggataaaaac aaagtgaaaa 360  
aactggtttc gatggccaat cctgccttat ctatgatgca ac 402

<210> 5418  
<211> 426  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-065-Q1-E1-E11  
<400> 5418

ggtcaggaat acncgggtcg agccacgcgt cagcatttt gtcgggttgc ccaccacaa 60  
aaggagactt ttataggatg gaaagttctg ttcttcgag tagttgttg ttagttcaa 120  
catagcattc actagtataa ttctgtataac gttcttttc cttttctgtt ctagacccct 180  
ttaaaggaat gctacactca aagtcttcta ctgttgaactg tgctcaagct gcttcagcaa 240  
caaccattag atcccattcc aatgaaacgc agcagcaagt gccaaacaca ggctttata 300

tttctttca ggctcccaac tcttacgaag aggcgaaacc aaaacttagca gcactcgact 360  
cgagcagtga gtgggagagc gacgtacgcc aagaacagaa aaccccccgcg tctggtttc 420  
ctggga 426

<210> 5419  
<211> 424  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-065-Q1-E1-E4  
  
<400> 5419

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cacggcaatg cattgagtct aaagacgttg cgcgatggct tagattttta ttttccaaac 120  
aaaagtgcag cgcttcaatt tgttagagttt ttgcatcgcg ttgtcccagt acgcatgaaa 180  
aactccgatc atttggtttc tcatgacccc cacaacacta cctacaaata caaatattct 240  
ttttccgcag agttgcccccc agtttgtang gatgacttgg tttgttacc gaaaaaaagta 300  
tccaccagtt taggcggact aggtccattt gtattggta ccaaagtatc caaaaatctt 360

tgtttcatcg attcgtggac gcttcaaacc ggagaatttt ccggatatca atattgnag 420  
aattc 424

<210> 5420  
<211> 394  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-065-Q1-E1-E5  
  
<400> 5420

aggcacccgt cagggaaattt cggctcgacc cacgcgtacg cccacgcgtc cgtcacaatc 60  
gagtgttatt ttttggaaac tattcttagtgcatgcttaaa gcggatgctc ctgaacaatg 120  
cgacgactac agagaagact acaaggagtgc tctttggcac aagaagcagg taactttgt 180  
ttttgttagt tcggaatttt gttaaacgttg atttttgtaa aagctggcgc gaaaatactt 240  
ggtagataag gaaatcagaa gacgaaagaa actcggtctc cctataacctt cgggtgatga 300

agacgacaac gagcaacagc agtaacgatt ggagagttt attttctgt agaaaggat 360  
cagctgtttt caataaaaag tttactagtc tcgg 394

<210> 5421  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-E9

<400> 5421

ggtcaggaat taccgggccg acccacgcgt cagcggaaagc gtgggtgtcg aaagaacgtg 60  
ctgtgaagtg agagaacgta cgagaaagcc aagtgaggaa aagaaggcaa gttagagggcg 120  
gcccggagaaa ggagagggcg taagacgtga tacagagtag gaagaaaaga gaagagagct 180  
agaaaggagg taaaagaaga gtaaaaggac tagaagaggt acggaattca cgaggaagga 240  
gcgtgaagga aggaggaatc ccaagtaatc gaggaagaaa aagcttcggt gaaagcgtga 300  
acggattttg tacacactgc ccgtcaagtt ctgaaagtgt gcttagaata agcaggagaa 360  
gtagaagaga gtaggaaaag aagaaaggaa gtgaagacgt aagacgtg 408

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<210> 5422  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-F2

<400> 5422

aggtacacgg ttccgaattc ccggctcgac ccacgcgtac ggctattgca agatgtcaac 60  
tggatattac gaaagacccg cacccaattc tccacaaagg atggcgacca agccttgcaa 120  
accctactca gcaaggtcgt tttccagtc ctcttggctt tgaaaaatct ggctcggtct 180  
cacggcatgc actggtcgac gtgtcagtcg gtactcaagt cgttgattct atcgtacaaa 240  
gtgctccatc aagtattctc catacagtt cattgcttga ccaccaccc tccttaccatc 300  
accatccaac tggccaaactt tgtatggaca gaatacacac cgggggtcta cttgtttatc 360  
ccttttatga acccatacga aaccaaccac cgtgcaaaac ccaaggctgc caaagaatcg 420  
cgatggattc cccaaattga 439

<210> 5423  
<211> 451  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-F4

<400> 5423

gtaacggtag ggaattcccg gctcgaccca cgcgtacgtg ctatgattt acgctttgat 60  
tggcggacc cgagaaacga gagtgatgag gagattaaaa tgccttattt taaaacggtg 120  
gtagctgcat atgtatgg actggcgctt actttttgg cggttgcgt ttcatgca 180  
gctcagccgg cactattgta tctggttcca tgggtctt gatccgtaac ttgtctgtct 240  
tttattcgag ctgaattaa acagttggtg aaatacgatg agtccaagga cgaaaaaact 300  
aaaaattagt ggtcataaaa aatattcgct tccacagggt tggcttgct tcaagagttg 360  
acgagtatca agcccacagc tttagctat ttcaactatt ttgctgtact ctatccgtg 420  
aagcgaagaa agcacggtag aatcaagcat c 451

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<210> 5424  
<211> 269  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-065-Q1-E1-G1

<400> 5424

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gtcaagaaca gagaaagaga atgacaattc agatatcaac tcgtcgtaaa caccgttca 120  
agaaaacctgt tccaaaaacg acagctccac ggacaaaaca ggtaacaaac tgacaaggga 180  
acttgcgca atttgcattcc atacacattc aaagagaact ccccaagaaa aacttggatt 240  
ttgaaaagtt cccctccatg aacttaat 269

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<210> 5425  
<211> 388  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-G10

<400> 5425

ggtcaggaat atccgggtcg agccacgcgt cagggcagtt aggcaatgtt tgcttatttt 60  
catatgtctt tcggctctgt taggttcaac tttggctgct tctggtgcaa ctcttattta 120  
ctcggtgctt cagagtaaaa gagactatac ttttacagtg caaagcatac agctggctaa 180  
tctaacaacac gtataacaaca gcagtgtatt gggctttacc tttcttgctt ccaatgacac 240  
tgcttgaaaa caatcaagag ccaatgtcac tggtgactt agtgcagcaa aacaaaacgt 300  
aacaggagca atagcgttcc tagaacgctt gatagcagca agcacagtga ataaaacggt 360  
ggagtttagt aagctctcta gtggtaacg 388

<210> 5426

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-G11

<400> 5426

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cgagagaagc agcagcagca caacaagcga gattagcaga gtgggaagaa tggagtggag 120  
aaggaagagg agacactagt ccaagttcg atccattaac ttttacccaa ctttatgtgg 180  
gttctattca cttttctatt agtgaagaag attacgcac tatttttag ccttttgggg 240  
aagtcgttcc ttgcagctt cacaaggacc ctgaaacggg acgttcacga ggaaaaatgggtt 300  
ttgttcaata cagaaaccac gaagatgcga aaaaggcatt ggaacagttg aatggacttg 360  
atcttgctgg taggccttta nagttgggtt tggcaactgc agagactcag aaa 413

<210> 5427

<211> 295

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-G4

<400> 5427

ggtaacgagt caggaattcc cgggattgaa gttccgcagg atggcgctt ctctaggcaa 60

actttgggtt tatccttcgg gagtggttt tctaggtgca gctgtgttt tgtatggttt 120  
gcaacacgat aaattgccac tagagagagt ccagttgca aaaaccttt caaagcccg 180  
ttcacaaagca gataatcaag ttgttcgagc aacaccggaa gaatgcgatt gtctccgct 240  
ttggcagtgt atgactagtg gccaaagacga ctgttctcaa cttgaacgtg aactg 295

<210> 5428  
<211> 275  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-G5

<400> 5428

ggctcgaccc acgcgtacgc ccacgcgtct gcaattgtct ttgttgtgt gttaatatg 60  
ttgggtttcg tgcacctcgt gagtccaaac aagatatctt caaaaggag ctttgtaaca 120  
tgccctgttc tatccaagaa acgagtatcc ccgtctaaga gagcaactat tgtggctcg 180  
tcatttggta tgaacggttc caaaatggga tcacagggcg gtgtcaagtg taaattctct 240  
ggcgtaccaa aaccattggc gttggttcaa aaact 275

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<210> 5429  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-H1

<400> 5429

aggtacaggt tcggaattcc cggctcgacc cacgcgtacg gctcaacgcc cactttctt 60  
ccactcaaatttggctttg gtagcagacg tttccaacgc tcatcaagtc aaccaagcta 120  
tttcacagtt tgcttccaag ttgggtcggt tgatattgc atgtataat gctggaatcg 180  
tgtttagtgg aacagaagac aagtatgctt ctgaaaatgc ttccgtggag cagtggaaaa 240  
agacattaga tgcgtacttg acaggagtat ttatatgttgc tcaggcggaa gcgaaatgg 300  
tgcttccaca acattatggaa aaaataatca acactgcctc catgtcagca catattgtga 360  
atcatcctca aaaacaggcc gcctataatg cagctaaagc aagtgttagta caac 414

<210> 5430

<211> 413  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-H4

<400> 5430

aggtagatgt acggaattcc cggctcgacc cacgcgtacg tttggcct tgtggtggtg 60  
atgccttggaa ttgagctacg tagtggcaac tccgctgtct tgaaagacat aactgcaagt 120  
attgaaaagc ctgacataaa atggataact aggacgaatc tcagtaactt tctgaattct 180  
gcagaaggaa atgttacggt tgacttgcg cggcagtgtt gcttgaagga tatattttca 240  
ttgaagcttc tcgacaataa cttaagttt gctgttttta atgatgcctt gtttttagtt 300  
ttaccaggct tattttgtt tattactggt aatcgatat tctgttagacg ctcggacttg 360  
aatgaaacgg aagcatttggaa gtcctgctt tcgttatga agatatgccc acg 413

<210> 5431  
<211> 385  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-A10

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<400> 5431

cgggtcgacc cacgacgtcc ggcactgtct agtcgtccaa ctcagcgaaa cagcaataac 60  
tgtgaaaatg cagtaaacta gcagtaggac gaaaagaccc cataattctt gactagatag 120  
gtttagggag gagagagaat catgaagtag aggaggtggg gtaagagatg aaagaccact 180  
gcatgaggat aaggaatcta actgagtaag gaaaataagc ttaagcttagt ttggctgggg 240  
aagtaaagcc taagaaagag taaattaggc aagcaaaggc atgagagaag tataatagca 300  
gaagcatgct tgaagaaaaaa gaaagagatt tcagaaaggg aaaaaagtc agctatagag 360  
aacaggtgaa ggagaactcc aaaag 385

<210> 5432  
<211> 403  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-A11

<400> 5432

gtcaggagtt cccgggtcga cccaagcgctc agccccacgctc tccgcccacg cgtccgtcta	60
atttgaacct taataccagt ttccctagctg aagtgtattt tcgaatggga gcgattcaag	120
agataaaaacg aaactttgct gctgcaaaag agttttattt gaaagcattt gaaagagaatc	180
cgaaccacgc aaagtcgttg caacagttgg gttggattga acatgaagaa ggtcgttcag	240
atgaaggctt taaaatatta aaacgagctg ttgaagcaga tcctaacgtt ggtcagggat	300
ggtatttgtt aggaagactg cacatggcaa aaaaggaata tcgttctgct tacgataatt	360
atcaacgtgc agtttattgc aatagtcgaa atccgcgggtt ttg	403

<210> 5433

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-A12

<400> 5433

ccgggtcgac ccacgacgac	agcccacgac	tccgcatttt	tctttgggag	aaatacgac	60
tcttcgactc atggcaccta	agaagacatc	gaaaagtagca	cctcatcctg	aagctctgg	120
taaaaaagaa aataaggaga	aacagaaaaga	gaaaaaccct	ctttcgaaa	gcagacccac	180
gaacttttgtt attgggtggag	atgtataacc	aaagagagat	gtcactcggt	ttgttcgata	240
tcgcagatat gttcgctttc	aaagacatcg	agtggttcac	atgtcgagac	tcaaggtgcg	300
acctgcaatc caccagttt	cgcatacctt	ggatacaaac	gttccaaac	agctattcag	360
cttggtaatg acatatacat	cagagtctag	gttggaaaag	agaatgcgcc	tacgtgaaat	420
ggcataagct					430

<210> 5434

<211> 456

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-A4

<400> 5434

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ggagcctttg tgagtgcgtt ttgtcgac aaccgcaaga cgaggaagaa caaccacaag	120
aagagaatgt tgtgcagaat atttacggtt taggttcttt tgaatattca gacagttctt	180
cgttcgaacg acaaaggaat aaaaagccta ctactttttt gggcaagttt gcaaccactg	240
tctcagacac gtggaaacag ttttccaag gttttactga agtttctcaa aaaaaggccc	300
taaagtaccc aagtctacta tgtttggag áctcttaac ggaatattcc caacatatct	360
ccacttcaga aggaagaggc tggggagctc tgctggctaa tcattattct acaaaggcag	420
acgtcatcat acgtggcttt gctggttaca atactc	456

<210> 5435  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-A8

<400> 5435

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acatcattca tcatttgcat tcttctccctt ttgaaataac tgctaaatat gctcaccccg 120

tggaggtagt attcttagga acggcttcca ttgcaggacc tatgctcgtt ggacctcact 180  
tggtgacgct ttggatataat ttggggctaa ggttggtaca aacggtgaa ggcacagtg 240  
gatatgactt tccttggagt cctcgttatt ggataccctt ttatggagga gcagagttc 300  
atgattatca tcacaagata tattctggta attatgcttc cagtttatt tgaaacgact 360  
atatgtttgg aacggattat gcttacggtt tgtacaaaac aaaagggaaat ggatgctt 418

<210>	5436
<211>	446
<212>	DNA
<213>	Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-066-Q1-E1-B10

<400> 5436

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tatgtqagaa aaqctqctct tatgtctcaa qaataqtqg atagacatcq cgtggcaatg 120
```

gaaggcgctt cgtttcaca aagaaattta acacaagggg aagcactgga acaacggaca 180  
agtgcagttt cctttcaag aactcttcac gacgcttcca gtgactcgcc agcaaccgaa 240  
gcacaacaag acttgtcgca ttctgtgact ggaaacacaa gtacacctag aaacttgaag 300  
acaaggaaa atagttggaa tagtacgct tcaaaggatg cggcagcgtc gaatgtcgtc 360  
gttacaggca gcaacaaaac aagtaaagaa aggaacaaga acgtctcaat caacanaccc 420  
gatacatata atactagtgg aatgac 446

<210> 5437  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-B11

<400> 5437

ccggctcgac ccaagcgtca gatgaaagaa gcagcaccga ctgttagca aaaacacagc 60  
actctgcaga aaagagaaaa tgtaaagtat agagtgtcg gcctgccaaa tagtagagaa 120  
gaaatcgatg aaagtgaaag cgagtaaaag atgaggtata gagaatggcg gtcctaacag 180  
taaggatcca aaagttagcga agtaaataga cgttgaaag gcgtccagta taaaaggaga 240

aaccagtgtta ccactgtcta gtcgtccaa tcagcgaaac agcaatgact gtaaaaatgc 300  
agtaaactag cagtaggact gaaagacccc ataattctt actagatagg ttttagggagg 360  
agagagaatc atgaagtata agacgtgggg ttagagatga cagaccac 408

<210> 5438  
<211> 383  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-B2

<400> 5438

gacccacgca tcagccccacg cgtccggAAC tatcttgctc tggtcaaca ttttcgggg 60  
tatgttaatt ggaaggtcat cggagtccac aataccgaga acaaaagata accaacgagg 120  
tagcaatgca tccttggcaa acttatcgga taccaacact cgcttcaaAT aaagcttaat 180  
aggagttgat tctgattctt cggaaaaaaaaa gtcgaatggt ggccttctg gaataaaaaag 240

aataacttcga aactccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300  
aaaaaaaaaaa aaaaacttaa aaaaaaaaaa aaataaaaaa aaaaaaaata ggggggcct 360  
ctaaaagatt caaccctacg tcc 383

<210> 5439  
<211> 445  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-B5

<400> 5439

cccggttcga cccaagcgca agcaacttcg ccatgtatga ggcattcaa gttcagtgt 60  
ttccgtttcg aagttaaaa tcgtatagct atgccagtcg ttggcgaga gccaaagactt 120  
gtccgcagtc aaagcatagg acttgttgc aggttgc ttcagtaacc atgtcaagga 180  
gaagtgtctt aaaatttagca cttcttactg gagcgtttg gcagtttct gtttgaaag 240  
atgcagctt ggcagatggt gcggctctt ttgccacaaa gatcacttct cgtcgcagat 300  
acggaccgcg tattcttggt ttagaacacg atatcacctg tctcgaagat tatattcata 360  
atcaagagtg ggacaagata catgaactag tatcggacag ttatggaat gcccagaata 420

agccaagaac aggtaaattt tggtc 445

<210> 5440  
<211> 451  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-B6

<400> 5440

aagtcccgcc tcgaccacca cgtcagcgga cgcgtggcg gacgcgtgg tggcggtt 60  
aaaaaaagtat cacggaccca cagacccccc gtcgctggtt ctcattaaaa aaggtcgaat 120  
gcttctgaaa tccgatgccg tactacgaat tgccagatgg ttggacaatc agacccttcg 180  
tggggca gttgcaacca gagtggatt tccgaggtgg ttgagagatt gggtatatac 240  
agaaattata tccaaatatac gacgtcaaattt atttggagag accgatgttt gtcgtctgat 300  
ggAACCTGGA TGGGAACATC GGTTCCTTG ATGGATATAT TGTGGATTTG TATATCAGAT 360

atctctgttt tggaagaatg aaggagacaa cgagtgacaa catgatgttc acagttgtga 420  
ttccttcata gttgggttcat aaaagaataa t 451

<210> 5441  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-B9

<400> 5441

ccggctcgac ccaagcgtcc ggaatgtatgt ggtaagagag agggcactta tgagggtgaa 60  
gaagtacagc gacgagatag aagctctcag gagagagtac aaagaaaagag aaaaagttag 120  
agaacgttat gatcaactatc gtgtcaagtt agagaattta gagaagaaaag gaaaagatca 180  
accacgaatt gagcgcaatc agcagaagtt gaaggacgca gaagacgctt atcatgcagt 240  
tactgcagag ttgatacaga aaatggaaac tagttggaaag aaacacgttg aaatttttgc 300  
tgaggcgtcg attgctttgt ggcatacaca aatgcttatg attgatgagt tttccaagtc 360  
ctccgaggag atacggcctt atgttcaaga ttacttgaat aacttgaaca caag 414

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<210> 5442  
<211> 437  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-C10

<400> 5442

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gcaacgtcgg aatcgTTAAG tgacgcAGAA aacgagcaAG gtgcgtatGA gcaAGAAAGAA 180  
gcagaAGAAAG atagccATCA ccacacacAT gaaggaggAC acgcgcATGA acacacAGCA 240  
gaagaggGAAG caaccataCA tagcaaAGCG gagaAGATAT ctacAAAAGC tttgcAGAAA 300  
ttgggtatac actcagttc aggtgttacG agagtaACTA tcaAGAAAGAC cagAAATATT 360  
ctgtatgtta tctcccgtac cgatgtttac aagtccggccg ggtcgatAC gtatgttatt 420  
tttggggatG caaAGAT 437

<210> 5443  
 <211> 421  
 <212> DNA  
 <213> Cyanidium caldarium  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB190-066-Q1-E1-C11  
  
 <400> 5443  
  
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 aaatgcaagt agaataattc taagggccg tgtgttaaggga cgaagacaac caccaccaga 120  
 aggaaatgtg gaaaagctta gttacttgca gaacaatcaa caactacttt ctgagtaaca 180  
 aaagatatatct caccacctcc cacgatctgc taccagaacc tatcctcaact accaccataa 240  
 aagagagaat tttggaactc tacaaaacag accccgagaa atggtcgaaa caagtactag 300  
 cttctcgaaa caaagttcc gagcgcacca tcaagttct catagaaatg gaccagctag 360  
 ctcagtcgat agtcgggtgt ntggaccaag aagcaacgca acactttcaa aaaatgtatg 420  
  
 a 421  
  
 <210> 5444  
 <211> 436  
 <212> DNA  
 <213> Cyanidium caldarium  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB190-066-Q1-E1-C12  
  
 <400> 5444  
  
 aagtcccgaa tcgacccaaa cgtcaggaaa gaatgagtaa gaaaaaaagg agtcattcca 60  
 ccaggggagt aaaggcgcaa gaaagaaacc caaagcaatt gacggaaatc ggaaaaagg 120  
 gtggatcacg taaattaatc cgatataaac cgagaacctt acctctccaa gaaggtgtt 180  
 cacggctgtc gaaaagaacgt gctgtgaagt gagagaacgt acgagaaagc caagtgagga 240  
 aaagaaggca agtagagggc ggccccgagaa aggagagggc gtaagacgtg atacagagta 300  
 ggaagaaaaag agaagagagc tagaaaggag gtaaaaagaag agtaaaagga ctagaagagg 360  
 tacggaaattc acgaagaang agcgtgaagg aaggangaat cncaagtaat cgaggaagaa 420  
 aaagcttcgg tgaaag 436

<210> 5445  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-066-Q1-E1-C4

<400> 5445

cacgcgtcag ctgcatggat atgtgcattcc actcaaaacc tggggtagat gtaaaaccaaa 60  
agaaaacaacg gttattgtca ttcttagcta gtcaggagcc ttgttatcta tggaaagaag 120  
aagatcgta tcaagaacca caaatagata gtttatatat ctctagtgc gggtacaagg 180  
cgatcattt aaggacaag atgttgg ttcacagtgg tcccttgatg gagaacaacg 240  
gtggggtagat ggatgagaat aatagtttg catatttcat gtcttccagt ttttatatca 300  
tgttttacg tctttgtcta gcgaaatatc gaaacaagtt gtccgttgaa acagctcagt 360  
ggcaagcggtt tcaacgcgag ttggatatgc actgtgctca natatccgct gcactcggtt 420  
tgcacgacaa acg 433

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<210> 5446  
<211> 235  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-C6

<400> 5446

aattccggc tcgacccaca cgtcaagaca cgcatcagcg cacacgtcga cgcacgcgtc 60  
tgcccatgct tccggactat agaagtcttg tcaccttgc ttgcttgaa tagttgtact 120  
aggattcatg aacgaaaatg gaaggaacag gaacttgaaa atctgacaag aatatctcaa 180  
ttgaaatgag atcataacta ggtgtggcc atagattaa agtagtatta tttgt 235

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<210> 5447  
<211> 317  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-C7

<400> 5447

aattccggcg tcgacccaag cgtacgccgc agcgaccca atcaactgaaa tattcattgc 60  
tggagtaaca ctgtttctag aaccaagaaa cgtacaagtt ccgatattcc gaggcagactt 120  
acgttacttt gagttgaacc atggaggcct ctggtggtt gccggtagcg tcgatttgat 180  
tatttctgct ttgagttctg cgagtatatt tgccaaagag gcacaagtgt tttgtggtca 240  
ctggaagcat ctttgtaaga agcacccgttc cgttattcct tttgttcgtg acccttggca 300  
agagtccatc ccttttg 317

<210> 5448

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-D11

<400> 5448

gtcccgggtc gacccacacg tcagacgccg gaagaaatga cacgtttaga aagtcacttt 60  
gtggaaatgg gttgaaaca agaagataga attccgttaa agttgaaaat gagtcaagta 120  
gagccattcc gttatagagt ggaagattgc ttgttaaga ttaccaagaa tgtgctcaag 180  
gaagctcgag cgacggaaat taggagagag atattgaatt ccgaaaaaat gaaagaatac 240  
tttgcggcgc attctttaga ctttgaggcg ttgaaaatgt atcgacctt gaatacgcga 300  
accaatccac atttggcaga tattccaagc tatctgatgc catccgaact gctccactg 360  
aataagaatg tacataaaaaa tttgcaatcg aagcaaagca aaaagagaag gaagacggga 420  
cgaccgttcg 430

<210> 5449

<211> 331

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-D6

<400> 5449

ggtataaggc aggaattccc ggctcgaccc acacgtcaga agagtcagtg tcttgccaaac 60  
gtggcaatcc gctgctgaat agtcggtaca taaaacttgag tagggaccac aactggaaca 120  
taatatttgg tcaaggtttc aaatattgtg tgctgtgtgt ctctcactta cacaataca 180

tacaattcc aatgaataaa aaaaactgct gctttccgt tttgaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa cggcagaggc tcaaaaggat acaggtctac 300  
gtatacgtgc acgcgacttc aaaacccttc t 331

<210> 5450

<211> 404

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-D8

<400> 5450

aattccggc tcgaccacca cgtaggaat aatttacca acaaggaaaa ctcccttg 60  
ccagttgtga ataaagattg aaaatgtatgt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaca aaaaaaaaaa cacaaaaaaa tcaaaaacac agaccatcaa 240  
aatggggccg cccccccagg gaaccacccc tcagttaccc aacttaaccc cttgcacca 300  
cacccacctt tcccaaaca gcaataccaa cgaccaggtt taaaaccatc cccctcccc 360  
aaacccgcgc acccccaaac gtaaacccca tgccccc当地 cccc 404

<210> 5451

<211> 410

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-D9

<400> 5451

ccggctcgac ccacacgtca gcccacgcgt ccgcacgcgt gtccgaaaaa cacagcactc 60  
tgcagaaaag agaaaatgtt aagtatagag tgtgcggcct gccaaatagt agagaagaaa 120  
tcgatgaaag taaaagatgtt ggtatagaga atggcggtcc taactgtt 180  
gatccaaagg tagcgaagtt aatagacgtt taaaaggcggtt ccagtatgtt aggagaaacgt 240  
agtgttagcac tgtcttagtcg tccaaacttcgtt cgaaacacgtt ataactgtt aaatgtt 300  
aacttagcgtt aggacggaaa gacccataa ttcttgacta gataggttt gggaggagag 360  
agaatcatgtt agtagaggaa gtggggtaag agatgaaaga ccactgtt 410

<210> 5452  
<211> 355  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E1

<400> 5452

gacccacgcg tcagcccacg cgtccgtatc gaagaaaagtc aaaagttgggt agttgccaag 60  
aagttggcaa agaaggaaaa gaaagttagtc attcgtgacc gaccagatat tattgaagcg 120  
tgtcgacagg agtttggaaa tatatttatac tatcaataca aagattcatt gttggagaat 180  
cattcttag caaataatag caatcataca tatgacaaag tgaatccttg ctcttcttt 240  
tcgacaggag atgttcttcg agatgcagca cttgcaactg tggctaagag acatggtgga 300  
ttgctctcta cgagtgaatt ggaaaagaaaa taaaggaatg ttgtttcat gtttt 355

<210> 5453  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E1

<400> 5453

aagtcccgcc tcgacccaca cgtcagccca cgcgtccgcc cacgcgtccg agagagttga 60  
accctttcga aagcgagctt ctaagtgggc gtaattgata ccaaatttct ggaaaagaag 120  
ctcgaaaaat aagttagaca aggtacccta gttgtttca agtacgaaaa acaaaacatg 180  
gcaatacaca agcgcacctt taaagttca taagcttcct ttggagtagc tccgaaaaat 240  
acaagttagcc aaaaacacgt gttatactgg ttgttgatgt ggcagtcac ttgtctccaa 300  
ctaagataat cgcgaagagt ttgttcggaa ggatatacaa ccacgcgacc gtcaaaggtt 360  
ggcttgaaaa agtcaaactt gcctatgaaa aataaagcaa aatctcaccc gaaaaaaaaat 420  
ttaaaaaaaaag ggcggcccc 439

<210> 5454  
<211> 214  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E12

<400> 5454

aagtccggc tcgacccaaa cgtcagttt gccaaagcaa agcacgacga agatacgggt 60  
gacaagaaga agacggcagt agcaaaaaaa taaacgaagc gagacattga aacgctgtcg 120  
aatggttatg aaagggtgat atcgtgttgt tggttcttat tggtagttt gtttttcgt 180  
atggataaaa aaaaagatag acttgtgtct gtgt 214

<210> 5455

<211> 305

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-E2

<400> 5455

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aacaatagaa ccggggaaaa aaattcgtaa agatatgaaa ctcttcgaa ataaaggaa 120  
gggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaaaga gaaaaaaaaa 180  
gaaaaaaaaa aaaagaaaaa aaaaaaaaaa aaaaaaaaaaag agaaaaaagaa agaaaaaaaaa 240  
aaaaaaaaaa agaaaaaaaaa aagggggggg ggcgcaaaag ggtgaaaggt aaaaaaggaa 300  
gaaag 305

<210> 5456

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E4

<400> 5456

cacgcgtcag attaaaaatc atggtagaca ctaagcttaa ggacggtgct agtgctgctc 60  
tttggacttg ccgcctatTT ctctatacag ttgtgttagc atttcagca acaataattg 120  
gactttaggg aaggaaggca gataacatat ggaacgatgc cctatattat catggaaaag 180  
ttgtgaacctt ttgtgcataat tcggcttcgt ctgttttga aggtggcgac catggcgcatt 240

gtaaaatatgt gatggcttg gcttctatca gcttgattt agtttcttt cttgggtgg 300  
cctccttgt cgacgcattg tatccaattc ttacaaagtt ctggttgtg gagctggta 360  
tcaacatatt ccttactatg tggtggttg ttggtgcaat tgtggtgact gcaaagcgaa 420  
cttcttagtgt tg 432

<210> 5457  
<211> 435  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E5  
<400> 5457

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agtgaagaga ctaagcaagg acgctgtgt acctcaaaga ggtcgaaac ttgctgcagg 120  
ttatgacatt tgccctcggt aagactgtat tgtaccagct cgaagtcggt actgtgttaa 180  
aactgacttg gcagtggcga ttccctcggt acactatgga agaatagcac ccagatcagg 240  
acttgcctta aagcatggaa tcgacgtagg agctgggtt atagatgatg actatcgatg 300  
aacccctcggt attatattaat ttaatcattc cgaaaaggat ttcaatatac ccaaggaaaa 360

tcaattacct caccttacct aagagagaat atctactccc aaagttgtt aagtggataa 420  
tctcgatagt actac 435

<210> 5458  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E9  
<400> 5458

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atcatggttt agacaaaact tcaagatggt gtttagtgctt ctctttggac tggtcgctc 120  
ttccctctaca cagttatccc agcattctct gccactatca ttggcttggaa tggacgtaaa 180  
gcagacaaca tatggaacga cagcttattc tatgatggaa agtacattaa cttttgtgct 240  
tattctgcct cttctgttgtt agaaggaggg gaccatggag cgtgtaaata tgtcatggcg 300

ttggcgtcta taagtttgc tcttagtcttt ttcttggtgc ttttacatt ttagatgct 360  
ttgtatccta ttcttaccaa gttttgggtt attgaattgg gtatcaacgt gtttcaaaca 420  
atg 423

<210> 5459  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-066-Q1-E1-F1  
  
<400> 5459  
  
acgcgtcagc gatTTTgga tgacaggaga tgaataagct tccacgtta cctaaagaag 60  
tagacgaact gggAACgaca caaaactacag caaaggTCC atTTTataaa gacagcgagg 120  
aagaaaatat gaacaattct agtgaggaag ataataatca agtagagaat gaacctgata 180  
gtggtcacag tgcttcgaca cctataccca tatcctctca aagtactggg aagccttgc 240  
tctcttcaaa ggttgagtct ttggggTTT ctacaacaga aggtgaagga actcttctga 300  
gcattgtgag tcctcggtg tttctgcccgg cgatAaacg ggagaagaat caagcagttt 360  
cgTTTcgTCG tattcaaagt ttAAACAAGA acaggAAATG T 401

<210> 5460  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-066-Q1-E1-F10  
  
<400> 5460  
  
aagtccggc tcgacccaaa cgtcaggctg acacccaaat agaactctcc aaggaacagg 60  
aaaccgcTTT acatgaaacg tttgatgacg caaaccatga aatggTCCT aacaagaaga 120  
gcaggacctg caaatgtaat gaagaccatc cttctacgca acagtaacca cttaaagaga 180  
actttacgtt acagtctaa taatggtgct cgagatagat ttagccatt tacctcagtg 240  
gaaatactgt attgaactct ttcgatattt cttcaataat atctgttgta agcattgatc 300  
gttggTTTctt cttaaatgct tggagagaac atcttcgagt catcgcacat gcactataaa 360  
cagggataaaa ccttgaatag tgatTTTgtt tagTTTaaa A 401

<210> 5461  
<211> 449  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-F11

<400> 5461

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agttgggtgg tttctggact ttaaggcatc tctcttctct tttgggtgtg actgttgtt 120  
gatattgtga aagatggag tcaaagggtt gattaatggg tttgggagaa ttggaaggct 180  
agttcttaga gctgcttgg agaaacagtc tgttagatgtg gtatgttatca acgatccctt 240  
tattgatttg gactatatgg tctacatgtt caaatatgac tctgtgcacg ggccttatcc 300  
aggtacagtg gtagcaaaga atggaaaact tgcgtggat ggacacgaaa tggcagtgtt 360  
tgcctccgt gacccttagtg agatcccttg gtcctctact ggagcagaat atattgtgga 420  
atcaacagga gtatgttactg ctgcagata 449

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<210> 5462  
<211> 430  
<212> DNA

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<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-F12

<400> 5462

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caagtgttcc tttgtatattt cttatcggtgg acaacctgca ggaaggattt tattcgatgtt 120  
gttctccatgtt gtcgttcccta aaaccgcgga aaatttccgtt gccctgtgtt ccgttggaa 180  
agggtttggg tacaaagact ccaagttca taggatcatt cccagttca tgcgttcc 240  
tggagactttt acacgcggcg atggaaaccgg tggcaagagt atttacggca ccaagttca 300  
ggatgaaaac ttcaagttca agcattcgga gccctttta ttgtccatgg ccaatgcggg 360  
accgaataacc aacggaaagtc agttttcat tacggtagtg aagacacacctt gttggatgg 420  
gaagcatgtt 430

<210> 5463

<211> 409  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-F6

<400> 5463

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gcagaaaattg ctagaacaca gaagaacaag gcaactatgg gccacttggg gctcttggaa 120  
gccaaaggtag caaagcttcg tcgagagttg ttggcgccac ccaagggtgg tggcggtgga 180  
ggcgaaggat tcgatgtcac gaaaaccggt gatgctagaa taggtcttgt atggtttcct 240  
tctgtggaa agtctacgtt gctgaacaag ttgacaaaca cagaatcaga ggttgctgca 300  
tatgaattca ccacactaac ttgtatccct ggttaatttat cacaaggcg ccaaacttca 360  
gctacttgat ttacccggaa ttatagaaag agcaaaggat ggaaaggga 409

<210> 5464  
<211> 435  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-F9

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<400> 5464

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cagccgcagc agcagccgca gcagcagcag gaatgggta cttaacgcg gttatccta 120  
cgacaggaga gatgcctatg tatgccaacc caacgtcagt ctatagcaat gattcggtt 180  
cccaacaaga gagcgactcg aagaagagtg gtgcgacgag tggaagcagt cgtagaacct 240  
ctggaaagaa cgagcgttat catccttatg agcgttgaac gaacattact tgccacgttc 300  
cacgtttaac tggggcaaaa gcagaacgaa tcagacaaag ttacactggc tgatatctta 360  
tgtggattta gaattacttg aaaaggaatg gttttgggt caagtacaaa atacattaca 420  
agagtgagtg gctgc 435

<210> 5465  
<211> 319  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G1

<400> 5465

ggccgaccc acgcgtcagc ggaagcgtgg ggtggtggtt ggtgacgacg acaggttcg 60  
acgtcgacga tgcctaaaca aatcaaagat atcaaggaat ttctgcttt ggtccgcaga 120  
aaggatgcga gagccatcac aataaagaaa aacaagacca acacgaaatt caaagtccgt 180  
tgcagcagat atttgtatac tttggtagtg aaagaaaagg acaaggcgaa caagttggaa 240  
caaagtcttc caccaggtt gacttgaaa aagattgatt agaaataaac tctatcggt 300  
ttgttcttgtt gatggaaaa 319

<210> 5466

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-G11

<400> 5466

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cttggctaat-tgtcgccagt-aacttgttt-cgtcgttttt-cttattatta-tgagtggaaaa 120  
ggtggagaat ggtactaata acgagttgtt agaaaaaccg agggttgtga tatttggtg 180  
tggaggcgta ggtggttatt tggctgccag accttcagag tgtggacgta gctttgttca 240  
cgtcatcgcc agaggttctc acttgaaagc tattcaggaa aataacaatt gcatcgtttt 300  
aaaaagtatac gatggtgact gcacttccc attggatagc atcggggagg acgcacaaag 360  
tgtgttgaac actgcgacaa ctcncgtaga tgccgtata tttacttgca aaatggacca 420  
gttggctgct gc 432

<210> 5467

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G12

<400> 5467

ccggctcgac ccaaacgtca ggagaatatt tgcttctgaa aagttcgagg aaaaggttgt 60

aaagaagaat gtaaacggaa acaaaggcaa gaaaaactcc ttttggcgt ctcttcagt 120  
gagccctgtt gtactgggtt ttattttatt ttttgactt gtagcagtt tccttcstat 180  
catacggca gctttggta ggaaattggg tattgaaact gttccagagc tgtaaagtgg 240  
agggacaacg acagtctgga ataagtggcg ctctggact gtagtaaaac aactggtgac 300  
aataaaacat cactgctgaa acaagtattg cataatctaa aactttgttt tacttcaaaa 360  
aaaaaaaaaa aaaaaaaaaa ataaaaatat atcaatataa acataaaaaa taaa 414

<210> 5468  
<211> 384  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G9

<400> 5468

gaccacgac gtcagggaa gctcaagaga gaataaaagt agcccaggaa caattaatga 60  
ggaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaagggcag aaacacaaaaa ggataaaaaa attgagtaca catacatgca aaggcggtc 180  
tttttttagg-ttgtcacctt-atttcaattc-actggccgtc-ttttttccct-ttcattattc 240  
ggcatatatatt ttgatttac gtcctcggtt ttccttgcatacatcgca tttccccggc 300  
ttgcctcata tcaatcttgc tcgaaccgtt ccccttccc aacatttgct taccctgaat 360  
ggggcctgga attttccctt ttcc 384

<210> 5469  
<211> 73  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-H10

<400> 5469

ccaaaaggat ccaagcttac ttcccccttgc aagcaacgtc aaagccctcc gggacggccc 60  
ccaaaattca atc 73

<210> 5470  
<211> 385

<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-066-Q1-E1-H4  
  
<400> 5470

gtcaggaagt cccggctcgca cccacgcatgc aagacctgtatcatgtgga gagtcagaag 60  
aagaagcttc cgtaatctc aacgccccatga atcaagtggatgtatcaag ccttggaaac 120  
tttccttttc ttacggacgt gctttgcagt cttcatgtct gaaaggatgg caaggaaagg 180  
cagagaatgt ccgagcggca caagaaggct ttttagttcg tgcaaaaagca aatagtgg 240  
ctactttggg taaatatgct ggaggtactg ggaatagcga atctttgttt gtcaaagatt 300  
ataagtacta agggaggaca tatctccagt ttacctctta tgtgtgttgg cctgaataaa 360  
ctttcttgat agtaacccttt tagtt 385

<210> 5471  
<211> 216  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-066-Q1-E1-H8  
  
<400> 5471

aattcccgcc tcgacccacg cgccaagaac gggagtcgtatcaaggccctg aaatagtcaa 60  
ataacttcata tttgactttg aaagggtggat gaatttcaact aaagagatga aagcacgtcg 120  
tcaagaatct ggagataccg gtggctgtgt gtaactttataaaacaagat agttttatca 180  
cgtcgactct ataaagatct catgagattc ttccct 216

<210> 5472  
<211> 439  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-066-Q1-E1-H9  
  
<400> 5472

ggtagggc aggaattccc ggctcgaccc acgacgtcag atcacaaaaag aacaagagga 60  
agatttcgcaagctttatcgaaatggacggg gatggtaggg ctgttttttc 120

caaagtgcac gggagcgcag tatcaaacac gtcgtttagg taacatcaca gtaaaggaac 180  
tcggtacggt ggtccgttcc ttgggtcaga gtcctacgga agcagagttg aaagaaaatga 240  
tagcagaagt tgacaaggat ggaaacggca ccatcgactt tcaaggtaact acatgcttct 300  
gtccgtangg ttggagaaga ctctgactgg aacgaatatg ctcttagagt ttctcgactt 360  
gatgtccagg catatgagac aagcagatac agaagaagag atacgtgaag cgctcaaagt 420  
tttcgataag gatggaaac 439

<210> 5473  
<211> 382  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-A1

<400> 5473

tccgggccga cccacgcgtc agtgaagaga ttgcaagaag ataatattt gaatagagca 60  
ctatcacaac caggagatgt atttctgtgc ttttgcaca tccagttgtt ggtgaatgca 120  
gaaagagcta ttataggaaa tattacttgt cgagaaagta tcgaattgtg tcgtcgatta 180  
gctggacata tagcggtttg gttcgatgaa catttggatg actttcgttt ggaagctatc 240  
ttgggagcac tattgtgtac ttgttattgt gagtggaaagc gtttgaagg agaattgggg 300  
gtacaagact ggaatgaatt ggagaagata tcttccttag atacttggaa gcttgtgctt 360  
ggtacaagac aaagaatgga ta 382

<210> 5474  
<211> 405  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-A2

<400> 5474

ggtcaggaat atccgggccg agccacgcgt cagcccaagc gtccgataac cacatatgcg 60  
acacgaagct cgcttcctac caaaagttgc caaacaaaca gaacatacgt aacctatttg 120  
aatctttct ccactttcaa aacacaaggc actattatcg acaataggca taactggaaa 180  
atgaaaatac ttcttagcat ctgcattcta gcacacacaa gtatccagtg gcccctgttt 240

ctaacgggag acgaagaact ctacttacgg ggaaatataa attacacaag taattcaga 300  
gaggaataga ctccgactgc tgtggcttaa aatagatacc tccagtgaga taagcagcat 360  
tttgcaagag ggatgagttc tcttcctcat ttaagtacaca aacat 405

<210> 5475  
<211> 219  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-A3

<400> 5475

gtcaggagtt cccggctacg acctaaggct gaagcagcag caaatggtaa cgtatcggtt 60  
ttcgaatatt ttgcacctgt ttattactat gtacctggct atcctcagtc ttattggtat 120  
aatccacaat ggggaccaaa ttttcacgt agttcacaaa gtaagaacct acttcaaagc 180  
gacgttgccc taaaagagaa tcgaagacag aaaaataaaa 219

<210> 5476  
<211> 398  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-067-Q1-E1-A5

<400> 5476

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gggtggatca cgtaaattaa tccgataaac cgagaacctt acctctccaa gaaggtgttg 120  
cacggctgtc gaaagaacgt gctgtgaact gagagaacgt acgagaaagc caagtgagga 180  
aaagaaggca agtagaggc ggcccgagaa aggagaggc gtaagacgtg atacagagta 240  
cgaagaaaag agaagagagc tagaaaggag gtaaaagaag agtaggagga ctagaagagg 300  
tacggattc acgaagaagg agcgtgaagg aaggangaat cccaaatgtt cgaggaagaa 360  
aaagcttcgg taaaagcgtg aacggatttt gtacacac 398

<210> 5477  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-A8

<400> 5477

aggtaatggc caggaagtcc cggctcgacc cacacgtcag cgacgcgtg ggcggacgcg 60  
tgggttcgag gagagagaga gagacagaca gatggccaac gctggtcaag atggcattgt 120  
gcaagtcaac aagcatagaa gagtaaagag attgcaagaa gatgagattt tgaagagagc 180  
actatcacaa ccaggagatg tagttctgtg ctggcaac atccagttgt tggtaatgc 240  
agaaagagct attataggaa atattacttg tccagaaagt atcgaattgt gtcgtcgagt 300  
agctggacat atagcagttt ggtcgatga acattggat gacttcgtt tgaaagctat 360  
cttggagca ctattgtgtt cttgttattt ttagtggaaac cgtttgaac gagaattgg 420  
ggg 423

<210> 5478

<211> 353

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-067-Q1-E1-B4

<400> 5478

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tcgctgtang aacaacgaca taaaatgtct gtttattac aaagttcgga tttcaacac 120  
attcttcgtt ttctgaatac caacattgtat ggcaagagga aagttatgtt tgcgttaacc 180  
gccataaaag gtgtgggtac acgtttctcc aatttagtgc taaaaaaggc agaagttgac 240  
ctgagtaagc gtgctggaga tttgacgtcg gaagacattt accgcataat caccatcatg 300  
cagaaccccc gacagttaa aataccagat tggttcctca acagacaaaa tga 353

<210> 5479

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-B8

<400> 5479

aggtaatggc caggaattcc cggtcgacc cacacgtcag cccacgcgtc cgcccacg 60  
tccgcccacg cgtccgtaga aaggagtcg ccacttgaag aattggtaa ggatgatca 120  
acggaaaagt aacaactccc ttgccgagga agaaacggtt gtgcggttt tagaaca 180  
caacagcaaa atcgaccctt tagcgttcaa aacattgtgg atgcactatc gaaagaagga 240  
ataaagaagg catcttgta gaaaattcta actagcctag tcgaaaagga agtagtatca 300  
gtgaaggaat atggaaaggc aaagatatac ctatttcgac aggacactat tgagatacca 360  
gataagaaag aagtggaaaga gatggacgag cagttaaagt cggaaagaaga agaatatgc 419

<210> 5480

<211> 348

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-C3

<400> 5480

cacgcgtcag agaaaatgaa agcacagaag aatgtaaatg gttagagtaa aaaccataaa 60  
ggaagtaaaa gcggaatct gagaggagga aagccacatt gggactgaga aagggtccaa 120  
acaagagaag tcagcagtgg ggaaaattgg gcaatgtaca gggagtatg acccagtaat 180  
gaggagtgg aaaaaacagaa aaggaagtag aaggaggaa tgaagggaaat ttatggcaaa 240  
aacacgtgcc aacagcagcg gtaaaacgtg tgttagcaagc gtagagcaga agaactgggt 300  
gtaaaggtcg agtagtagag taagtgtaaa agggaaagga aaggagag 348

<210> 5481

<211> 141

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-D10

<400> 5481

acaaaaaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaagg 60  
aagacgcaca aaaggataaa aaacttaaat acacatggat gcaacgctct tggtcttcta 120  
ttttgtctcc tacgttcatt t 141

<210> 5482



ggtaccggtc gggattccc ggctcgaccc acgcgtacgg gcagagtatg aagttagagct 60  
ggcggaaaat gaccgcgttg gggactttt tgtcaagttt catggtcccg tagatacacc 120  
ctatgaaggt ggtgtatgga aagtacatgt cactctacca gaagcctatc cctacaagtc 180  
actttctatt ggcttgtga accgtattta tcaccccaat gtcgacgaaa tgtcaggttc 240  
cgtttgtctg gacgtcatca atcaaacttg gtcacctatg tttgacttgg tcaatatttt 300  
tgaagtattt ttgcctcaac ttttgacctt tcctaaccct tcggaccctt tgaatggtga 360  
ggcagcggct ttggaaatga nggaaccgga aa 392

<210> 5485  
<211> 415  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-E12

<400> 5485

ggtaacggtc aggaattccc ggctcgaccc acgcgtacga tgggagaatg acagtggaca 60  
aggaaaggaa agaacctacc tcctcctacc cagcagagtg ggaacagcat cgtatcgtcc 120  
agtccaactt gtttcgtcaa caagttagaaa ccttttgcg tcctattcca aaggatgtgc 180  
aacaaagaat ggaacgaatt gcggaagcct tgttattaca acctaagac acgttgatag 240  
atgtgggtt tggAACAGGA gccatggtac cttttattca caagtatatt ctttatctc 300  
acatTTGGTT gtgtgactgc agtgaagcca tgtagaaca agccaagaaa aggttcccc 360  
agtgtcattc gattcactgc gacttttaa agttgcaaca agcacccgag aagac 415

<210> 5486  
<211> 387  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-E6

<400> 5486

gaattccgg ctcgacccaa gcgtcagcgg acgcgtgggt cacccacgct tccggaattc 60  
ctgtggactg gtggtcactt cgtactttga tgtgtgacat gttgaccgga ctgccgccat 120  
tttagtcaca aaatttgaac tcgatgtatt aacagatatt gaaaggcagaa ctgaagctca 180

cttctgatcc gaacattctc tccccagatg caaggaatct gatacaggca ttgttgcaac 240  
gtgatcctca taaacgttta ggtactggac caatacgagc gcatgaaatc aattaacatc 300  
ctttcttcg ttgtatagat ttgcaaaaat tgtatagaag agaaatttag gcaccttgga 360  
agcctcctat gctttctgat gaccata 387

<210> 5487  
<211> 386  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F1

<400> 5487

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gcttccgaa gatatggttct ttaaaaagtg gggacctttt atcatataaa tatagatatg 120  
gacattgtat gtaccttattt caatattttt attccataat agagagatga aacattgtat 180  
agaccgttgtt gttgtcttgg aaacctcgta gaaaacccaa gtttctccct ggggaggaat 240  
tgaccaatgg acacacaagg catccagaag cagcaaacgc actttggaga aagttgggtgg 300

aactccatct atcattgttg ttgtggtgaa cgatggtggt gttacaagtc acggattcca 360  
agaccaagaa aacatatgaa ataaat 386

<210> 5488  
<211> 403  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F10

<400> 5488

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gttttctatc tatgctggtt atctattttt cggccacac tacattcacc aagtaccttc 120  
caaagaccaa accattggtg tgagtttattt ggtatattgt gtatttgg gtatttgg 180  
gacttttgtg gttgtcaccc gatgggtgac tcgaggcagg gtaatcgaaa ttcgtcaaca 240  
tgttagtgaaa aacaaatcca cacaacaagg aacaagttgg ttgcagttt attgccatcg 300  
atatttgggc ataggaaaac cgctttgtat ccaagtgaaa gttggcaatg tacgacagat 360

aggcaacgtg gaaaggttgg caaggtttgg tgcgttggcc aat 403

<210> 5489

<211> 310

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F12

<400> 5489

ggtaacggtc gggattcccc ggctcgaccc acgcgtacgc ccacgcgtcc ggcaaataagg 60

aatatatatggaa ttacaagga caagccactt gtaaaaata tacaaaaaaa ggcatcttgt 120

ggacaacgtt ggtcgcccttg atcgttggac tagtcacaga cgattacctg cgaatggttc 180

aagtatttat atgggagta gttttggtag ctatgggcgt actttcccc tggccatgg 240

attcaagaca tccacttgtg tttgtccacg ccgcaaccaa aaacaacaat aataacaacc 300

attcttaacc 310

<210> 5490

<211> 351

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F4

<400> 5490

cccacgcgtc aggagagaat catgaagtag aggaggtggg gtaagagatg aaagaccact 60

gcatgaggat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg 120

aagtaaagcc taagaaagag taaattaggc aagcaaaggc atgagagaag tataatagca 180

gaagcatgct tgaagaaaaa gaaagagatt tcagaaaggg aagaaaagtc agctatagag 240

aacaggtgaa ggagaactca aaaagaggag agcaacgaac gatcgaagaa gaaactttgg 300

gggtaacagg ttaatgtggt gttagagaac gtatcaagca ccacgattga c 351

<210> 5491

<211> 349

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F5

<400> 5491

ttcccggcc gacccacgca tcagaaagga cactgcgtt gaaacagaga gtaagaagaa 60  
ggggcggaag aaacgaagaa acaagtcgaa caagaagaat gaaatatcaa atcgatgcaa 120  
tgtatgcgt gaaaattta cttctagaaa caaactttt gagcatatca gaacggaggg 180  
tcatgcctt a cgagttcgt aaggataat ttttttgc tccactttt gcaaata gta 240  
gcaaagtacc gactagtgaa tagttgcaaa ttctcagtgt accgtgttat ttatacgaaa 300  
tttgaaaca acttgattac atataaagtg catatagata gatccttc 349

<210> 5492  
<211> 409  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-067-Q1-E1-F6  
  
<400> 5492

gaattccgg ctcgacccac agcgtcagat ttatatttc agtcgcggaa attgcgcaag 60  
gctcaagagg agaacttcgc atggattgg tgagacttat actgagattc ctccatattc 120  
gaagtggAAC aaccacaacc gatcacgaaa actcacatgg agtccacgtt atttcgaaag 180  
accaagtatg tacatctaca gcgactcaac aaccttgcg ccgcgcgtt caaagaaagc 240  
ctatgaatac tccaaacttc tttgcatcaa gatgctgtt accagttttt ggcgatgaaa 300  
tagttggaat atttgtaaat tgtgatactg taatggtgca tcggagcaat tgtacctcca 360  
cgagtagttt agatgactct tttcaacgct ttcatttgc ctggaaaaaa 409

<210> 5493  
<211> 373  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-067-Q1-E1-F8  
  
<400> 5493

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gaaagtaaca aagattgttg tgctatatcc ttttggagga agctcatgga aggaaaggat 120  
cgtccaagtt tatggaaaaaa agcttgaac cgtgatactg tgtggaaaa ggaccagata 180

ttagatgtgc tgttttggat ccgccacgtg gtagctctgt tgataggttg tctattcggc 240  
cttctcaaata taactggctt accaggctt attcttaca tatctatgg gttcactatt 300  
tctcaggctt atttcaagtg gtttttagat ttagacgaag acgactttgg tggttgggg 360  
accgtacaac aag 373

<210> 5494

<211> 313

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-G1

<400> 5494

ggtcaggaat atccggccag agacgaaagc gataaagaca tgagagaaaa gaaatccgaa 60  
aaagaagaga aaaaggtaag aaagaggacc gaatcagggt aagaggtaga ggagcaagaa 120  
gagaagagag aatgctgggt ggagtagcga aacaagagaa gggaaataaa aggtaaagaaa 180  
gaggaaaggt ttacgacaga acgaagtata aagaagagag tgtaaggcgg cgtcataata 240  
gaaatccgaa aggagtagaa aagaaaaacg tagatgaaca aacaaaaaga gaaggtggc 300  
ggggaaagat aaa 313

<210> 5495

<211> 388

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-G10

<400> 5495

gtacggtaag gaattcccg ctcgaccac gcgtacgatg ttttgcccc atcttgtgaa 60  
agacttggcg aggattcgcg gtatgatgaa accgggtagt ttatttctt gtgttgtttg 120  
gggagagggaa aaggactgtc atatttta cgcaacttagg agcgttatca gtcctcctcc 180  
tccaccccca ggaactccag tttcttatgg taccaggaa aaagttatgg aagcccttag 240  
aaaggcagaa tttcagatg taaaggcggt ggagttttag gttgttcatg aaaccaaaga 300  
tgccgaagaa tacatcaccc ttatgtctgg tgtcaataaa tggatggaaa aaagtttggg 360  
agagaaaggt tccgaacttt ggcaaaaa 388

<210> 5496  
<211> 273  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-G11

<400> 5496

aaaaccaaca aagagctttt aatttccctt tttgctttgt gaggatttgt tcacactgcc 60  
tttgaggag tggtcactca caaggcattt tctctcaaaa aaacgcccccc gaaataggtta 120  
gaaaatccag caccagcaca gcaacaacca accaacattt ctacttctta gggacaatcc 180  
tgaagcaact gagtttcctt tcccagttgg ccctttcca aggaagtcaa tacgcgatag 240  
tctgcaacag taggaatcca accaccagtt tca 273

<210> 5497  
<211> 407  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-G12

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<400> 5497

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ctggttgctt ctatcggtgc gaccgctgcc agaacatcca tcgcgttgca cagcttgcac 120  
cacatcaaga catcggtgca ggccctgacc gccttgggtt gggaaatac gtgtcacaaa 180  
ttcttcaata tattcttgaa gttcgtagc tattgggttgc gcgaaactgg tggatgtatt 240  
ccgactgtcg catactatcg cttattgacc tcattgtgtt ccgaccaccc gggatttgca 300  
actcagttgc atcaagatca tgccttatcaa tcagcaatgt cagctggctg tcagtgtgt 360  
ggtcgtggac tgtgtacata tatagtcaga gtgtgtgtca gataaaaa 407

<210> 5498  
<211> 394  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-G3

<400> 5498

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agacaccaac cacttatgac gatatcaagg caacgatgaa agctgcgtca gaaagcaaag 120  
ctttaaaggg aatattggca tataccgaag atatggtagt ttctactgac tttgttcaca 180  
atagtcattc ttgcataatgat gatgcgaatg ctgaaattat gttgtcgaa acttttgtga 240  
agctgattgc ttggatgat aatgagtgaaa gctactccaa tcgtgttgta gatttggtgc 300  
accatatggc gaaagttgat ggtgttagctt aactctgctt ttcttggtgt ttttcgtgt 360  
attgtttgtt ttgtgaaaga gatgaaatgt gttg 394

<210> 5499  
<211> 381  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-G4

<400> 5499

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ggtttgcct ttgaaaacac gtttagaca gattcaaatg gctgcagtaa ctttaagaa 120  
acagaataact gatgtacctg gtattctata cggagaaaaat gctcccaaca actttggagt 180  
tattgttgc caagagtggc ggggtttgaa cgaagtgatc aaaaaacgag cacaagagct 240  
gagcgatggc ttgcaatgta aagctctttt gccagatccc tatcgaggaa aagtagccac 300  
ccaaccagat gaagctcatc atatgatgac caatttggac tggcccgccg cttatcgatga 360  
tattgcagct gcctgtcaat a 381

<210> 5500  
<211> 379  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H1

<400> 5500

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agtgttaaggc ggcgtcataa tagaaatccg aaaggagtag aagaaaagag agagaagaaa 120  
gaaaagaaga gaaaagccgt actgaagacc gacacaggtt ctcgaggaga aaggagaccc 180

aaattaaggt gagagaatgg acgataagga actaggcaaa aggatatggc atctgcggta 240  
gaacatatga aagaagcgc accgactgtt tagcaaaaac acagcactct gcagaaaaga 300  
gaaaatgtaa agtatacgat gtgcggcctg ccaaatacgta gagaagaaat cgatgaaagt 360  
gaaagcgagt aaaagatga 379

<210> 5501  
<211> 401  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H3

<400> 5501

ggcccgagcc acgcgtcagg aggagcccgt atttccctta cttatgaaac ttaatgttagt 60  
actacatata tggttgaaaa agtctgaaaa gttggatgct gtttctgatt atttcttttg 120  
tcattccagc ttttgcagg aattcaaatac gcttgtaaaa gtagtagtcg aatataatgcg 180  
caagtcttcg gatgaaatga ttatctatgc ctgttctagt cagttggaaa ttggtttcaa 240  
ctggttccat cagtgtcttt ccagaattgt ttctctaaac aggccaaaga aaggttccaa 300

gtcttcttct tcgagtgttag tcgatcagaa caaggaacga ccagtgcctt ctatcgac 360  
cctttggat agaaatgaat tggcacatct gatatggact c 401

<210> 5502  
<211> 417  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H6

<400> 5502

tcccggtcg acccaagcgt cagtgaggag gagtggctgt ctcttgcct ctccaaaggg 60  
actttattgg agaagattct tctctacaga atatgattat acaggatgaa ctggaagaga 120  
atccacagga ttgtcggtt ccgaacaaga agccagagag aaagtaatac gtttgtatcg 180  
atatgccta agtagtgtca aagatattcg caaacactat cgttaaatg aaagcaaaga 240  
agatatacgat gcgtgtattc gagattttt taaaaggcat agacatgttc aagatcgaaa 300  
gcttattgtat atgttgggtgt tcaaggacg acaggacata gacgaagttc gcgcccagtg 360

gtaaaagtctt catcaagttc tcaactattt aagagcattt gatgaaaaga aaattaa 417

<210> 5503  
<211> 222  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H7

<400> 5503

agccccacgcg tccgaaggac tagaagaggt acggaattca cgaggaagga gcgtgaagga 60

aggaggaatc ccaagtaatc gaggaagaaa aagcttcggt gaaagcgtga acggattttg 120

tacacactgc ccgtcaagtt ctggaagtgt gcttagaata agcaggagaa gttagaagaga 180

gttagaaaaag aagaaaggaa gtgaagacgt aagacgtcaa aa 222

<210> 5504  
<211> 391  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H8

<400> 5504

ggctcgaccc aagcgtcaga aggactagaa gaggtacgga attcacgagg aaggagcgtg 60

aaggaaggag gaatcccaag taatcgagga agaaaaagct tcggtgaaag cgtgaacgga 120

ttttgtacac actgcccgtc aagttctgga agtgtgctag gaataagcag gagaagtaga 180

agagagtagg aaaagaagaa aggaagtgaa ggcgttaagac gtgatacaga gttagaagaa 240

gagagaagag agctagaaag gaggtaaaag aagagtaaaa ggactagaag aggtacggaa 300

ttcacgagga aggagcgtga aggaaggagg aatcccaagt aatcgagggaa gaaaaagctt 360

cggtgaaagc gtgaacggat tttgtacaca c 391

<210> 5505  
<211> 445  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A1

<400> 5505

ccggggccgac ccacgcgtcc acacccaact agtagaagaa tatgttggcg tttacttgc 60  
tcccagactg tcgttggta gagacttctc gattctccag atgtccaaa gccaataccg 120  
tctcggtcg acgttagttcc cagtgttcac actcttgaa gagtgttcg atgaactaca 180  
gtccctattc gataactacc gacaagtcag aaggacatat tgtccccgt acttttcaa 240  
gatttgagtt tcttgaaggt cgagtcaccg gtccaaaccgt cttgaaccct agcataactg 300  
actttacagt gtctaattgtt tcagatgctg cctttggaga atggagagca ttatcggtt 360  
caagtagagc gaaaagaactg gaacacagaa gaaacgtcac caaagcgaca atagaaaagtc 420  
tcaagaggac tcctaacgaa aagtc 445

<210> 5506

<211> 214

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A10

<400> 5506

aaaaaggcaa atacgggaaa gcagtaaaag aagaaagaga aaggaaaaaa ctgagtatca 60  
ggaagaaaaag agggagtaga tgagggaaaga aagatcaagg aagtaagagt aagagaagga 120  
gtaatgtcaa tgaaagcagg aaagtatttgc aagaagagag tgtaaagcgc gtacctttg 180  
cataatgtcc cagcgagtga aagaggaagc aaaa 214

<210> 5507

<211> 223

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A11

<400> 5507

cacgcgtcca ccaacgtaaag acgtgaagag gtacggaatt cacgaggaac gaccgtgaag 60  
gaatgaggaa tcccaagtga tctacgaaga aaaggcttcg gtgagagcgt gaacgtgaat 120  
ttatacacac tgcccgtaa gttctgaaag tgtgcttagga ataaccagga gaagtacatt 180  
agagtaggaa aagaagaaag gaagtgaaga cgtaaagacgt gac 223

<210> 5508  
<211> 342  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-068-Q1-E1-A5  
  
<400> 5508  
  
gacccacgca tccataacaag ctctgtacta gacgcttaa acattactaa cgacattaat 60  
gctattgaag gtctatctt gatcaacttt gccttagcc tattcgttt tcgaattgtc 120  
atagcagatg gtttgttgg tggttcaaga agtgcaggct cggggaaaca aaatactgga 180  
tatagtaata atgcgtgagc tggtgggtac ttgtgaatac actactgtat catgttgtgc 240  
ataacatact tcgttgttgc ttacacagat tgtattgggtc cagtgtacta atacttagct 300  
tcacatcatgttttcaattt ccgcggaaaac cctgacgtta cc 342

<210> 5509  
<211> 445  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> unsure at all n locations  
<223> Clone ID: LIB190-068-Q1-E1-A7

<400> 5509  
  
gacccacgca tccaggcgtc cagtatgaaa ggagaaacga gtgttagcact gtctagtcgt 60  
ccaactcagc gaaacagcaa taactgtgaa aatgcagtaa actagcagta ggacggaaag 120  
accccataat tcttgactag ataggttag ggaggagaga gaatcatgaa gtagaggagg 180  
tggggtaaga gatgaaagac cactgcatga ggataaggaa tctaactgag taaggaaaat 240  
aagcttaagc tagttggct gggaaagtaa agcctaagaa agagtaattt aggcaagcaa 300  
aggcatgaga gaagtataat agcagaagca tgcttgaaga aaaagtaaga gatttcagaa 360  
aggaaagaaa agtcagctat agagaacagg tgaaggagaa ctcanaaaga cgagagcacc 420  
gaacgatcga agaagaaaact ttgggg 445

<210> 5510  
<211> 262  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A8

<400> 5510

aattcgcggg ccgacccacg cgtccatgta cattcaacat catcaaatgc caaaggagg 60  
aaagaaaat tcttcaaaga aagaagccac aagtaaacct gcagcagcag atgctacaaa 120  
gacgacagaa aagtctggtc cggaagccaa gttgaaggga actggtgcaa agaaacaata 180  
aaaagttgac tatgcatgtg cagtcctgtt atgtttgtg agttctgtt gatagttcc 240  
agctattctt ttggtagtga at 262

<210> 5511

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B10

<400> 5511

acgcgtccga caacgcgtcc gcccacgcgt ccggccacgc gtccgcccac gcgtccggtg 60  
gacgaccgca agttcttatg atgttggAAC gtttcattAG ttatattCAA cgtttccAG 120  
gtatccattG ggctactatG gaagaagttG cgcaggTTT tagaagaAGA caacTTTC 180  
catgtgctta gttgcataAA gtttatttct gaatgttGAA caacttCCAT atggatcaAA 240  
aaaaataata tcttaatCA actgctccAA acttgttATT atccgttagC atgttGCAA 300  
ccacgttctt caaaaaAGAA atgggaggCC cccccAAAGG tttcaccCTG atgtacacGG 360  
aaatccaacG ctaatacccc cctaaaggTC cccctaattCT tcattcaagg gccgttttt 420  
taaaatttcc ggactggAAA aAC 443

<210> 5512

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B11

<400> 5512

acgcgtccaa caacgcgtcc gcccacgcgt ccggccacgc gtccgcccac gcgtccgcat 60  
caagttgtgg tcgttGAATC gacaAGAAAT gatacaacat ctcaaAGTTG ccgatgctgg 120

tagtttgtta tctttgata tttatggaa gcattttca tcaggtatta ctagcgtatg 180  
gattggagga agcaagaaga tacttggttt attggagtgg gatggacaca agttgaagga 240  
agagtatcga caagttgtat tgaaaaggag tggattggga gatgtcggtt ttcgacaaga 300  
tgaacgtata ttggcagttg ctcattggga tgccaaagtt cgattatatg aaatacaaaa 360  
caactttaga caatttagcaa cgttaccta cgaccaaagt ggactgcgc tacaatttgc 420  
acctcgagac t 431

<210> 5513  
<211> 391  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B5

<400> 5513

aattcccccggg tcgaccacg cgatccaatc agtttacgga tgacacggta cgttccttac 60  
atgatgcaat tatgattgtt aagcgtacgt tgaagcattc caaggctgtt cccggtggtg 120  
gtgctgtaca aatggtgctt tctaaacgtc gtcgagacta ctccagaact attcatggca 180  
agtcgcaact gttaatctcg acttttgcag cgtctctaga aattattcca cgaacgttgt 240  
gtgagaatgc atggtagat gcaacagaca ttctgaacaa acttcgagcg atacacgcga 300  
acaatcttcc ctatgtacgc attgattga gcatcggtca tctatgtgac acgtggaaaa 360  
gtctcggtg ggaatcgta ctatgtaaatc 391

<210> 5514  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B7

<400> 5514

acccacgcac ccagttgggtt gataatgata tgccttctg ccgttgacgt ggaagccatg 60  
gagaaaatag tcgacaaaga gtcaccattc taaataaaatg atgctcggtcc agttataactg 120  
gtgaatccca atctagttga tatgggagca acaggttttag gcttcaacgc aagacagcta 180  
agacaacgcac tattgagcac gtttgaatcc atctacttcc ttcgagtgtt ttctgcggga 240

gttgtggttc gtcagtatcc ctttgagtgg agtatttggt tggaaataac caacgaagac 300  
gaaaatactt ctccgactc tccctacagg tatatatatg aaacgttcc cacgtttac 360  
tccttcacaa tggtaggtt ctagattgtt ttccagaccaa gcctagtgtat gacactattc 420  
aacagatatt ccgaaattca 440

<210> 5515  
<211> 423  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B8  
<400> 5515

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tatcgctgt ttcatgtggat agttttctt ggaggttctt tttatgggtt ttggctgctt 120  
tattctgacc ataagaatag tgcagttat gctgccaagg aagaagctt tattgctcaa 180  
gaaaggaaca aagaaaggcc catgagtgaa gaatactgga gagaattgca agaaataaaa 240  
cctagaaatt tggaagagtt gtacaagatg aaagaagaaa aggctcgaaa gagagcagaa 300  
aaatatcaaa ggttggaaagga aaacctactt ggttatttg gcgtcacgac aagtccccgt 360

tcgagtgagg aagatagtgg ctaaacgaag gtcaactgtc caagtcgaaa ctttgggg 420  
aaa 423

<210> 5516  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-C10  
<400> 5516

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tttggaaaag gtctcgata gaatgtcgat caacttccat ttcaaacagc attgaaatat 120  
accgttggaa aatattatac tccgagtggt cgatgtattc agtcctcaag ttattcatcc 180  
gatcatgaaa gactaaagat aacagctatc catgaaagaa aggtattca aacgaagaat 240  
ggacgcgacg tattggacaa tggtaggtt ccgttccat gacccggata ttccgtggaa agaaactgca 300

attcctgaat ggagacgctt attacatcaa caaggattgt tgtttattt tgcaaatgat 360  
tatgcagcta cccatccgaa aggaataggg cccgatttt atgtcgatga tgaattattt 420  
gcacagtttca aaagtatgt 440

<210> 5517  
<211> 406  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-C5  
<400> 5517

attcgcgggc cgacccacgc gatccaatca gcttacacat cacacagaac aagggtggtg 60  
gtggatggag cgttggactc ttttactga taatggacac cgacttagtg ataagttgg 120  
cgtagatgct gatggcacac ctggtcgga gtggtgata gaagaggagt tgtctactgc 180  
aaaggaacaa gtttgagtc gcgacatgaa gaaagttggt caaaagtggg gactaaatgc 240  
ataacgtcaa cgttggcatg aaacttgaa agtatacact aatggaaagg ttgaaaactac 300  
gtatcgctta gatagagcca attcaggcag ttgttgaaca tacgaacttg gcagctgtgt 360  
ggtagtaatt ttgaagatac ctatttctgt ttgttgtaca atttca 406

<210> 5518  
<211> 387  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-C6  
<400> 5518

attcgcgggc cgacccacgc gtccagtggaa atattatcat acgaaaaaat ggaaggagag 60  
gagatggacg aagaagacga gatggacgaa gaagacgaaa tggacgaaga agacgaaatg 120  
gacgaagaag acgaaatgga cgaaaaagcc cagaagccaa gataaggtat caaagtaaag 180  
aaagaaggaa aaggagaaga agagagggta ggcttagaag cagcaaacca gagaggaaag 240  
cgtaaagca tgaaagaaaa gaaatccgaa aaagaagaga aaaaggtaag aaagaggacc 300  
gaatcagggt aagaggtaga ggagcaagaa gagaagagag aatgctgggt ggagtagcga 360  
aacaagagaa gggaaagtaaa acacaaa 387

<210> 5519  
<211> 310  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-D3

<400> 5519

aaaaaaatttt cgacgctcat ctgatggaga aggctatgaa tttcgtgaag aaactgcaga 60  
aaaattgttt catggtgcaa gtaacatgtc ttcatcaactt ccttcataat tgttcaagat 120  
tcgctgtatt ctttataca gtagagaaca caagttcaa tcgacaacca tgcgaaacta 180  
tcccgatagt gtttatagt tggatgaatc tatattaagt cttaaggact atgttctgta 240  
taagaccatt tttcgacaag tgtgaaaagt aaatggctag aattgtttct tttcaaaaaa 300  
aaaattgtac 310

<210> 5520  
<211> 398  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-D7

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<400> 5520

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aaaagcagaa gaatggcaa aagagaatca gaaggaagga gattgaaag ctttatgcaa 120  
ggacaaagac ttcaagaaag ctgtttaga tgatttgaag aaagttgcga aaagcaagtc 180  
cttggaaagga tttgaagttg tgaaaaatgt gtatcttcaa ccggaaagcat tttctgttga 240  
aatgatttg gtaactccaa cgatgaagct gaagcgtcca gcgttgaaca aaaagtatga 300  
aaaggaaata gaaaaaatgt atcaagaatt gcgc当地 cgaacataga acgataacttc 360  
tgacatttat aaaggttcca attttttcc tgaaaaa 398

<210> 5521  
<211> 288  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E10

<400> 5521

gaaggatcta atatccaatg aaaaccgtta tttggtgtgc gaagagggaa tagacttact 60  
cgacaagatg ctgcgttatg atcacgcgga gaggataact gcaaaaagaag cgatggatca 120  
tccattttt gatgaagtta gagccaagtg cttatcgaag gaagagaact attctatgga 180  
taatgacagt actacgacta ctacaagcgc aatgaatact gaaccttgct gatttgatca 240  
agtttccttt tctctgaata aagagacctt ttccattttg tgcaaaaac 288

<210> 5522

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E11

<400> 5522

acggtagt attccgggt cgccccacgc gtccgacaac gcgtccgtga aaatcatgg 60  
agacactaag cttaaggacg gtgctagtgc tgctcttgg acttgccgcc tatttctcta 120  
tacagttgtg ttagcatttt cagcaacaat aattggactt gatggaagga aggcagataa 180  
catatggaac gatgccctat attatcatgg aaaagtggtg aactttgtg catattcggc 240  
ttcgtctgtt tttgaaggtg ggcaccatgg cgcatgtaaa tatgtatgg cttggcttc 300  
tatcagcttg attttagttt tctttcttg gtggccctcc tttgtcgacg cattgtatcc 360  
aatttctaca gagttccgggt ttgtggaact tggtatcaac atattcctta ctatgtggtg 420  
gttggttgg 429

<210> 5523

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E7

<400> 5523

gaccacgcgca tccacccacg cgtccggac aattcggata tcaccgcgtt tattaacaag 60  
agttcggccg attacataga gagttgggtg atggacgcac gacaaaaagg cgcttcacag 120  
gtttgtccct acaaacgaga gggcaatttg ctctggctta cagtcttcga tcatgttcga 180

gaagatatga agatagcttggaggaacccttggtcccg tattgcctat tgttcgtgtg 240  
aagagtgcgg aggaaggcgt tgagttgcc aataggagca ctatggcctt gcaaggctgt 300  
gtatattacca acgatattga aaaggctatt cacatatccg atgagctgtc aaccggAACG 360  
gtgcaagtga atggacaacc agcatgagga cctgaccatt ttccattcca acgttttaag 420  
gattcgggat tacgtt 436

<210> 5524  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E8

<400> 5524

agtacgatct agaattgccggccgacccacccacgatccacccacgcgtcc gcccacgcgt 60  
ccgccccacgc gtccgagaag agaagagaga atgctgggtg gagtagcgaa acaagagaag 120  
ggaagtaaaa ggttaagaaag aggaaaggTT tacgagagaa ggaagttagaa agaagagagt 180  
gtaaggcggc gtcataatag aaatccggaaa ggagtagaaag aaaagagaga gaagaaagaa 240  
aagaagagaa aagccgtact gaagaccgac acaggtactc gaggagaaag gagaccata 300

ttaaggtgag agaatggacg ataagaaaga ggcaaatacg ggaaaggcgt ataagacgaa 360  
cgagaaacga aaaacactga gtaccacgaa gaacagaggg agtacatg 408

<210> 5525  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-068-Q1-E1-F11

<400> 5525

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ttatcacttc gactcggtat gctgctctgg atactcggtt atgaatattt taaactattt 120  
cctggaaatt ttgtattcaa attctgtgct cgctcatcct tgtttcttg aacaggtcga 180  
gaacttgtaa cggttccata agaaatggaa tccaaacttgc tcatgaaatt gtctttccat 240  
ttctcgctcg tagaattttc agtacttgcc aaagaaggct ttgtctcgaa aactgaatgc 300

tcctttcctg atacatttc aaatgaaacc tcttccttct tggaagtaat cggtgttct 360  
aatgatgtat tcaaagatgt attccatgtc gtagaagact gctttccaac aaaagacagt 420  
gaagaagaat tggacggtgt 440

<210> 5526

<211> 397

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-F2

<400> 5526

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cacaaaagtg tttattagta gacatgtaac tctcaaggtc caagaacaaa tgaccttta 120  
ggagcaacac agaagcgaca ctcgaaagca gttaaagggtt ttgtgtgcac tggcctctat 180  
tcttgacac tttttgaat ggccgctaaa gcactatctt cttggcaga agccttctcc 240  
tgcttttcg ttggcgatat gctcgacgca agttcatccg attcttgct agaatcgact 300  
gctacatgct gttccctaa ttgcgtcctg atccatgttt tggttgact ccagttgtat 360

tttgccaaatc caattaaacc ttcatcgaat atatttc

397

<210> 5527

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-F4

<400> 5527

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acactttgga gcagtatcgc cagtacagt gggaaaaca taagaagtcc aaactctttg 120  
gactctacgt tgctttctat cttagactggg caatgtaaag aaaactgaga gtgtcaagtt 180  
acccattttt gtgggttagag tgacaaggaa gttgcatac caagatggca tgtctacgca 240  
ctcgacgcaa aaagagaaaag actaggcata aagactgaat aagattcgat cgagagtaag 300  
cttgcataggc accggcaacg tagtaaccgc tggttcgtct gttacacggc cagctgtcgt 360  
gtcgtttatct ctccccgcgag actagctccg gttttacaag gctacccaac catcttgcaa 420

tcgtctagac acctg

435

<210> 5528  
<211> 454  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-068-Q1-E1-F6

<400> 5528

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atgttggtat taacaatagg agatttcat agtatggata aaatcatgtg tattgtgttg 120  
tttaacgct tctagttcct agtcgagtgg ctgcagtgcc tctcaagttt cgagaacttc 180  
tcgttccagg aaaaatacaa cgagtattat gtactgtaag aaacacaaga agagatgcac 240  
aaagtttca tcgatttacg tgattgtaaa agggaaactt gtgtaacaaa gagacagaag 300  
agttcctcaa agttatgtt cctcaagtac agattacaa aggtgatatg gacaacgtga 360  
gtatatgccca cctacggaaa atgtcaagtt ggaaacttta taaaaacgtt cagtcagaat 420  
atccggaacg tttgtgtaac aatgtggac aact 454

<210> 5529  
<211> 347  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-068-Q1-E1-F7

<400> 5529

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tatgaagatg ccgttttgg tttcatttcc atgggttgta ttggagaacc caactttatt 120  
tattttactc ctggagtaaa gttggaaaaa ggaggggact cgctaggtca acaatacaca 180  
gatcctaaga cagttatagg cattcaaaag agtgcatttgc ctattgttagg aagaggaatt 240  
attcacgcct ctgatcgaaa agaagccgca ttgacgtatc aaaaagcctg ttggatgct 300  
tatgtccaaac gaattggaa ataaagcgat tggcctgt tggttg 347

<210> 5530  
<211> 450  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-F8

<400> 5530

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aggctcgctt agaaaagtgtt tgcgtccaaa gagacaaagt ttttgaacaa ttggccaaag 120  
ttcgagagtt gagaagaaat cttggcgtcc ttcttc当地 agcacccctt cacgtacagg 180  
taaacattgg ctgtgacttt tatcttgacg gcgagttgga tgacgaaggt ctttactta 240  
ttgacatggg aaagaacgac tttgtggaaa tgcaaccaca agaagctcta gagactacaa 300  
tactgagaga aacttggctg gagaggctg gtgaatatta tacgaaaagg atcggagagc 360  
tggaaaggct gcttcaagta tatcggtgg aataatagaa gtatgtaatc agtattgtcg 420  
ccgcaatatg tatataacag tatttgggt 450

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<210> 5531  
<211> 262  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-G5

<400> 5531

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ttattcctcc agttattcta cctatacaca agacagtggta ttctacttcc caattattc 120  
aggacctgtt caaatctaac ctctgtttc ctaaatgctg gaaccaatga gagtttcctt 180  
ttccgataat gtgttgggtt ttgtttttc ttttcgata aacttctgtg gtttggattt 240  
gttattaaaaa ggtaagtac ag 262

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<210> 5532  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-G6

<400> 5532

aattcgccgg tcgacccacg caaccagtgc agcatgctcg gggaaaacct ctactggtgt 60  
atctcgacg gtaactagag gagtgaacct aagtggagca gattttcgg gacaggacct 120  
tagtggtgtc agtttcaac agagtctatt aagagaaacc gactttcatg ggtcgaaatt 180  
ggtttcagcc tccttcttg gagcagagtt atcctatgct aatttggaaag atgcggatct 240  
ttcagaagct aatttagagt tggcaaattct tcgtaacgcc aagcttaaga atgctatttt 300  
acgaggagca tactttcag gaaatacgcg ttttagagaat gctgatatcg aagggtgctga 360  
tttttcccaa gttattctta gaaaggacca aaagaagtat ctctgcagta ttgcgaaagg 420  
gataaaatagt catactggcg tcg 443

<210> 5533  
<211> 466  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-068-Q1-E1-G7

<400> 5533

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gaggaggatg gcagaagaga agacttgggc aacgagatca tagaccagga gatgaaaaag 120  
ctgctattcc gtggataccg gatgatgatg atgattgttag tttgcgtgaa agagaagaga 180  
ctgcttggtt tgcccaatgg aggtggattg cgtccatctc caacgaaatg agaaacaacc 240  
cgcgttggtt caagtgcctt gacaatcctt ttgcaggtag tagacccttt ttagcttga 300  
aagagttgga agatgcgttg ggtacggaaa aattgatgct cgtgatgcag acgtttcatt 360  
ggctgaccaa ccagttgccg caacgaatgt gccctatttc gcctagtagt agcangacga 420  
agagaaaagcc gagtctgttg ttttcaaca actagaattt gttggc 466

<210> 5534  
<211> 193  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-G9

<400> 5534

accacgcgtc cgcttattat tcacaaatag ataaggaagt agtcgagtct atggaagttt 60  
ccgagagtgt ttctgggtt cctgcagaga cggagaagcc ttatagaatt ccaaacttta 120  
caccattgac tcaagacgac tttgacgaag acttgtggtt ttccatggaa taaaagtata 180  
gtttttgtta aaa 193

<210> 5535  
<211> 338  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-068-Q1-E1-H11  
<400> 5535

aaaatctcac tggcgttgt attatttggtt gcttatttttta tggacgttgt gcgatgattt 60  
ttggcgttgt atttcatcggtt atgcataaac gatggagtcg tctggttcc atggatatgg 120  
atgaaggccac gatgtaaata ggagaaagta taaaacaata atatcaggac gtgaggatata 180  
cgataatata atattggca atacaaaaga caaaataagg taaaataaaa aaaaaaggaa 240  
gaagcactac aaggatacaa gcttacgtac acgtgttagcg ctacagtaat aacttcttcc 300  
agaatgacac gtttaaccat gattcacaaa aagggggg 338

<210> 5536  
<211> 440  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-068-Q1-E1-H6  
<400> 5536

ggccgaccca cgcattccaca tgcaagtagg taaagcgaac gggtagttaa agaggtgtga 60  
aagagtggaa gaacatgaaa gcacagaaga atgtaagaaa tggtagagt aaaaaccata 120  
aaggaagtaa aagcggaat ctgagaggag gaaagccaca ttggaactga gaaaagggtcc 180  
aaacaagaga agacacagta aatgaggagt ggagtaaaca gaaaaggaag taaaaggagg 240  
gaatgaaggg aagttatggc aaaaacacgt gccagcagca gcgtaaaac gtgtgttagca 300  
agcgttagagc agaagaactg ggtgtaaagg tcgagtacta gagtaagtgt aaaagggaaa 360  
ggaaaggaga gaaagaggaa agggatgaaa tgcagagatc tctagagaaa cgcaagacag 420

aaaagaaagg aagacacagt 440

<210> 5537

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-H8

<400> 5537

attcccggtt cgaccacgc atccacggac gcgtggcga agaagagaag atagagaatc 60

cgacgcgacc cttctgcaa gtgttcctt agataatgga aactcggtt cggaaagat 120

gaaagatatg gaaaataaag aggtccatcg agattttcc agtactgacc aggaacaagt 180

tacattgcaa gagcgtgtt gaacattca tcgagtggaa cctccataga ttggcgagtc 240

tttgagggaa gaaaatgcac cagctcatgt ggagaatgtc gttgaaccta gcaaccactt 300

ttcttatcca agtttctatc cagagaatat gccattccc acaggatatc ctccctcc 360

tatgacttca ggagtatggc catatccgta tttccagtt ccgtatttcg gacaatcctt 420

tgccctaca aagaatgact atagca 446

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<210> 5538

<211> 242

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B1

<400> 5538

ggtcgagcca cgcgtacgag acaggaatct tttagaggag ctgaggcgtt ggtacggta 60

aagcgatcct tctcagtggg tgcatcgaca aaatctccat ggtacccaaa cgataacaaca 120

tttgcacacag gttctttctt ctcaaccggc agaccgagaa cttggaaagt gtgcaactgt 180

ttccgaggaa gacatgggac aactagaggg tcagcgctct tgtaaaaga ccagtggaa 240

tg 242

<210> 5539

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B10

<400> 5539

tcaggaattc acgggtcgac gcacgcgtca gctgtgaggc gtgttgcgaa gcgttgcgt 60  
tatcgcttat ggcgttattt gaaagtgata tagttggcc tgcaattcac tttacgaaaa 120  
agtataattc aaggaggcgc tacaaggagt gcatttcgtg cttagtgct tcgggtggta 180  
aaccagggtg gttctttga cataagccga aaattactcg caacgggcta tacgactgat 240  
aagggtatga agaccaataa tggtgctgtt cgagaaagtg actttacga gagagtcttt 300  
tcaagaatag cttcaaagcg ctctgacttt tgaaaagaag tttctgtaac cttagtagtc 360  
tctaccattg acaccgagtc ggataagggtt atttcagtgt ggaacgcgtt tgttaccaaa 420  
gaccgtcagt tgttc 435

<210> 5540

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-069-Q1-E1-B12

<400> 5540

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gtattcgct tggttccctt atactgcct aagaaaaat cattctatta aacaatatcg 120  
tggagtcgct tcagaaacgt cgtaaaataa agacagaagg catggcaggg gtgtcacgtg 180  
caaagctcg tcttatgaca gacttgaggt tcatgaagca agagcctcca gagggttgta 240  
gcgctagtcc tttgagtgac gacaacttgt tcgtttgggg tgccactatt tttggcccc 300  
ctgatactgc ctgngaagga ggtatctaca cttgcgact aacttttagt gaagagtatc 360  
ctgataaaacc accgaaggc cgtttactt gtgatatgtt ccatccgaac gtctaccaag 420  
acggtaccct ctgttggac attattca 448

<210> 5541

<211> 214

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B2

<400> 5541  
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 agccgatttgcggttcctat gcagttaaat gcgttaattac aagttgtcac gagatatgaa 120  
 aaaggacaa tgctgttttggaaatatgc tgtatTTAA aacattggct agagctagtt 180  
 tcgaatacta aaaagtagtt gtgaaactgt tgtg 214

<210> 5542  
 <211> 294  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-069-Q1-E1-B3  
 <400> 5542  
 ggccggtcag gaattaccgg ctcgagccac gctcaggta caatggaga gtccatgtcg 60  
 gagaaggaaa tagttcacg ttatcagaca ctgaaacaac aaattcagca aataatgtta 120  
 aaaatagaag agtttgaaaa cgacagaagt gaacaagaac ttgtttgaa acagttgctg 180  
 ccttgaacg aacatcgtaa gtgttgaga caacgttagt actgttccta atgagcaaac 240

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ggttggacaa gtacaaccag tggtggcagc cacgagtaaa gacttgcagc aagc 294

<210> 5543  
 <211> 448  
 <212> DNA  
 <213> Cyanidium caldarium  
 <223> Clone ID: LIB190-069-Q1-E1-B5  
 <400> 5543  
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 caacggagaa agaagaagat ccctctccct tggaatgct ttccacaagt tttccttctt 120  
 gtgagaatga aatgacatct agtgattgtt tcgggtgggg tggttgtgg ggtggcatcg 180  
 acgataaaatc tcgaatagta tacagtatgg aatggaagat agaattgatg cggcattgga 240  
 catTTTATGA gtccttgatg cacagtcgtt tgTTTGTGAG tcactttgct acttggaaagc 300  
 agcaaggatca acgagatgtt ttagagttgt tggttatatt aggaattccc ttgaaagatg 360  
 ccaaacagac atgaaatcat atgaatgtga gatgtaaacg tttgttgcaa tcgaaatttc 420

cagttgcattg tcgtcatttt ggattgta 448

<210> 5544  
<211> 378  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B7

<400> 5544

gaattcccg ctcgaccac gcgtacgccc acgcgtccgt atatcattcg ttatgccttt 60  
tccaaggagt tttgtggta agagtatctt cctgacgata ttctttggag acaaaaagaa 120  
cagtttcgg atggcgtggg ctatactgg atcgatggtt taaaggcgta ttgtgaaaag 180  
gccgttccg atgcagactt gcaaaatgcc gctcagcggtt ttccgcacga tactccaaca 240  
accaaagagg catatgtta tcgagctata ttcgaaaaac attttggaa ttgcaaggca 300  
gtacaaggta ttcgtgaatc agttgcaaga tgggtaccta tgtggagtga cagcacggat 360  
cctagcggtc gtgcacaa 378

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<210> 5545  
<211> 333  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-C6

<400> 5545

cggctcgacc cacgcgtacg cccacgcgtc cgccccacgcg tccgcggacg cgtgggttgg 60  
tctgaatctt ggagtaagca caggatcgac attccgtacg ttgtttgctg ctctcgatt 120  
tcatcaattc tttgaatgtat ttgctgtctg tacgaatgtt tccgaagccc actttggcac 180  
ttgaaccact atagtaatgg tactttgcta ggctttggaa actccaatcc gtatatctat 240  
tggtatttgtt attgcacaca cttatcatga aaactcctcg gcatcggtgt taacgagagg 300  
catttggat gccatccccc gtggaatttt aac 333

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<210> 5546  
<211> 447  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-C7  
<400> 5546

ggtaccggtt aggaattccc ggctcgaccc acgcgtacgc ggacgcgtgg gggaccaaac 60  
agagtgacaa gaagagatgg caaggagaat attgggtgct tatatgggag atgccacagt 120  
ggcaactctg ttcatgtatca aaatgttggtt ctatcttact atcatgggtt tctccataac 180  
tatcttggtc ctcatggaa agaactcgga tggtatttgg atacatagtg tgccacactgc 240  
agatcaatat tgtgcataca agtcttcatt ggaggtgaac caccatggaa ttgcttccta 300  
ttgcaagtat atcggttgcg tagctgctat tgggttgggtt atctcgaaaa tccagttttg 360  
ctacggtctg ttgggtatct tttcaagtg gcaacaaaac gttgtggtaa attaaggatg 420  
cttccaatct atttttctgg gcttggt 447

<210> 5547  
<211> 425  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-069-Q1-E1-C8

<400> 5547

ggtaccggtt aggaattccc ggctcgaccc acgcgtacgc agaaaagctg taaaatagtg 60  
gcttaataa gtgaattgaa agctattgaa cgttgcggg tgggatcggg tgactacgaa 120  
ggactcaaga ctgttaggaaa gacagttatt ttctctcagt ggacgagata tttagatatt 180  
ttggagttgg cattacaaga caatggctt cattatgtcc gacttgatgg aaagttgact 240  
tgtaaagcaaa gatcgaaatg cttgtccagt ttcaagggtgg accagtcaga ttccatgagt 300  
agtgcacaaa ttttgcgtt ctccttggaa gctgggttgg ttgggtttaaa tcttaactct 360  
gcaagtcagg tgtttatatt tggaccatgg tggaaatcctg cagtggaaag aacaagctat 420  
cgata 425

<210> 5548  
<211> 316  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D1  
<400> 5548

acgcgttaaga cgaagacgac aacaactcat ccaatacacg cacctgccaa ctgtcctgga 60  
acagactctg aaaaggctgg aaaaggcagaa gcttgtgagg gttgtccaa tcagtctcta 120  
tgtgcttagtg gaaaaagtac tcaactggac cctgatatac aactcatagc ttctcgctc 180  
gcgaataata agcacgtaat tttgatatta tctggtaaac gcgggtttgg aaaaagtaca 240  
tttgctaccc aattggcttt tgcggtggca agtagagaat attttgtggg tttactggat 300  
gtagatattt gtggac 316

<210> 5549  
<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D10  
<400> 5549

aattaccggc tcgaggcacg cgtaagcaat agtggaaatt ttgtggagga gatgcctttg 60  
gtgtgtccgg gacatagtcg aggtattgtc cagttggaaat atagtccggt cacagtagat 120  
ggatattttc ttatttagtgc ctgtttgggt atgttatgt tcgttgtctt agttgctcaa 180  
caaaccgtc atagatggct atccaatgtt gcgagacggt gcaacgggca actgggtggg 240  
aactttcat ggtcacaagg gagcagtgtg gtctgcttcc ttaaacaata ctgcgacatt 300  
agcagttact ggaggagcag actttacttg tagaatatgg aacgctctca atgggctttg 360  
tttgagaact tactctcagc cgcacatttgc ccgagctgtt tcttttcgg aggatagtt 420  
caaagtgtttt gttggaggga ata 443

<210> 5550  
<211> 321  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D12  
<400> 5550

agcacgcgtc agcccacacg tccggctctca acaagttac taccaatgcc aaaagtataaa 60

ggaggttact cagcaagaat gccagtacgt ccaagagtgc tattgtgtcg agtatgaaga 120  
atgtcagcaa gttacccagg aagtttctcc ttcatgaaatt gtctactacg gtgaatcttc 180  
ttcttagcgt agttactact actagaacac ttgtgaaatg cgcaaagtgc caaagttagag 240  
tgttctttt tgaataaaact gtgactttt gtcaaagaaa acaaataagg gggaaaaccc 300  
cagtaaggac gcctataagg t 321

<210> 5551  
<211> 354  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D3

<400> 5551

cacgcgtccg cccaagcgtc cgcgttaaag catgaaagaa aagaaatccg aaaaagaaca 60  
caaaaacgta agaaaagagga ccgaatcacf gtaagaggta caggagcaag aagagaagag 120  
agaatgctgg gtggagtagc gaaacacgac aagggaaatgaa acgttaaca cagacgaaag 180  
gtttacgaga gaacgaagta caaagaagag agtgtaccgc ggcgtcataa tacaaatccc 240  
aaccgagtcc aacacaagcg agacaaccaa agacacccac acaaccgccc tactgaacac 300

ccacacaggt accccaggac aaacgacacc caaattaacg tgacagaatt gacc 354

<210> 5552  
<211> 367  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D4

<400> 5552

ggctcgaccc acgcgtacgt ccactttggc ttctgtccctc gtccctcgtc gtctcctcca 60  
acgagttacca aaacataaaa tagaaaatgg caactttact atccaaaaaaa agaagagcag 120  
tagccgacgg tgttttcaaa gcagaactta acgagttct gatgcgagaa ttgtccgaaag 180  
aggataactc tgggttagaa gtgaaaccca cggcgttgcg aacggaaatc gtgatccgag 240  
ctaccagaac acaaaacgtg ttgggagaaa aaggtccaac gattatagaa ctcactgcgt 300  
tggtagacaa gcgattccgt ttccctgaac gaacagtgg aactttatgcg gaaaagggttt 360

ccgatag

367

<210> 5553  
<211> 334  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-069-Q1-E1-D6  
  
<400> 5553  
  
ggtaccggtt aggaactccc ggctcgaccc acgcgtacgg gtcttccttg gtcagtttagt 60  
gaagaagacc ttcgtgaaac ttttccaaa tatggagaag ttgttgatgc aagggttgg 120  
gttgaacgtg aaactggtcg ttcccgtggt ttgggttcg tatcctatgc agaaggttcc 180  
tccgtaaacg aatgcattgc cgcaactggat ggcaaggata tgcaaggacg cactattcgt 240  
gtgaacaagg caatgtctcg tgaacaacgc gagagtggag gagactttcg tcgcgggtgg 300  
cgtggacgat accgacgttt tcgttccggc cctt 334

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<210> 5554  
<211> 325  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D9  
  
<400> 5554  
  
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agttgtacat tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaaag 120  
aagccacaag taaacctgca gcagcagatg ctacaaagac gacagaaaag tctggccgg 180  
aagccaagtt gaaggaaact ggtgcaaaga aacaataaaa agttgactat gcatgttcct 240  
gttatgtttt gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga 300  
aaaaattttt tatatttaca caaaa 325

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<210> 5555  
<211> 416  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E11

<400> 5555

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aaaaacacaa aaaaataaaa aacttacgta aacgtacatg aaacattcaa ttcttctgca 120  
aaggtgcctc caaactttca tttccctcgc cgtccttaa aaaaatcgaa ccccccccca 180  
aaggtttcca accttatttc ccgcgaatc catctcatta cccctttaa gggccgcct 240  
aatttcattc cagggccctt tttttaaaaa tccctaactt ggaaaaccct ttgtttctc 300  
cccttaaccc cctttctca atccccccct ttccccactt ggctttctct ccctcgcccc 360  
ccccctttc ccctcccaac cttttcccc ccccaattgc caatggcccc tcccct 416

<210> 5556

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E12

<400> 5556

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ggagacaaag tggagaaggt ggtagttcc gaaagacttg cggaatctcc atgtatcctt 120  
gttactggtg agttggttg gtcggccaac atggaacgta tcatgaaggc acaagctttg 180  
cgtgattcgt cttggcaat gtacatgtca tcgagaaaga taatggaaat taatcccaac 240  
aatgccatca tgcaagaatt gcgtcgccgt gtggaagcag acaagtcaaa caagaccgtg 300  
aaagacttgg tcaatttatt atttgacact gcattgtta cttccggatt ctctcttgac 360  
gatcccaacg ttttgcctc tcgtattcat cgcatgatta agtaggtct tagcattgac 420  
gaagatgaag tcacagaaaa ga 442

<210> 5557

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E5

<400> 5557

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aacaacaaga gcagtagaga taatgcttca cacgaccgac aaaaagcgaa agatgttcgt 120  
ctttcgaaca tttccgccttc aaaagcagtt gctgacgctg taaggaccag tttgggtccg 180  
agaggactag ataaaatggt gcaggaagaa ggtggagacg ttttcatcag taacgacgga 240  
gcaacaattt tgtcaaaaat gagagtggag catccagcag caaagatgct tgtggatctc 300  
tcgaaagccc aagatgttga agctggagac ggaaccacga ctgtagttgt catcgaggc 360  
tcgctattaa gtgcttgtct tactctactt gggaaagggg attcacccctt cattgatatc 420  
ggatgcgttc cagttgcag tggagaagg 449

<210> 5558

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-069-Q1-E1-E6

<400> 5558

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ttagttcttc cgtgcacaag ttattattct taaccatcct ggagaaattc atgcgggtta 120  
tacccagtt cttgattgcc acacaagcca tattgcttgc cgtttgcag agttggagaa 180  
gaagatggac cgtcgctcgg gtaagacagt ggaagagaat cccaggcta tcaagtctagg 240  
agatgctgct atggtaaga tgattccatc gaagccatg tgtgtggaaa ctttcactga 300  
atatccctcct ttggacggtt ttgcagttag agatatgaga cagacggttt ctgttgggtgt 360  
tattaaggag gtggagaaga nagaagtata aggaaagact acaaaggcgg ctgcaaaagc 420  
gcagaagaag taatcttgg ttgctt 446

<210> 5559

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E8

<400> 5559

ggtaacggtt aggaattccc ggctcgacc cacgcgtacg gacttcttgg gtcagcaagt 60  
ttatgaacaa ctccagaaag tatactcgga tactgaaagc gttttgatga agttggatcc 120

tctcgcaag ttgttggaa gaaatcttga acgattatgg aggagcgttgc ttcctatgga 180  
gcccggccct tcccgatgg atatttttc caccagaact gatacagacg agatgaaagt 240  
aacagagcgt aaaggagttg tctcagtacg acaaggagag tttgatttggaa tgaaattctt 300  
gaaaacatat tgtgatttga cagagtctga agcaaggcta ttttgtgata cattgaaatt 360  
gatgagagaa caagagtttta catcagttga tactgcaata tttagaacgcc tgggtatttga 420  
agattcaagg actaggctca aaatttttg 449

<210> 5560

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-G11

<400> 5560

aattcacggc cgacccacgc gtcagccac gcgtccgccc acgcgtccgg tcaatcttgc 60  
tggtaggtc gctgcaaata tttacgtgg ttagtgcata cagacgcatt ggcttgagca 120  
tgaagagtgg ttaaacgtga cggagacaaa caaagttaaa gatgaggaat gtattttaat 180  
cgatgtttagg aatcctgagg aagtacagtc cgaacctgtta ccgaatgcac agaatattcc 240  
acttcgttat attcgaagtc agcttgataa gttaccgaaa gaaaaggaaa ttgctgtgtt 300  
ttgcccgtcg gggcagcggtt cttatttggc atccagaatg ttaagtcagc tgggtttca 360  
tgtgaaaaat attcgggtg gcttttttc ttatcgatgt gtaaggcaa gtggccgaaat 420  
tcgttagtgg acgttgaacc ttg 443

<210> 5561

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-G4

<400> 5561

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cttaccttgtt caagtaaaatgtt tttttctgg acatggaaag aaattatctt ccaaataac 120  
acacaagttt cggtaaccata atatgttat gaaaggttctt ggaaggggag aggaagtaag 180

tagtatcgcg cgtttgcaac aacagagtag aagagtttt cttatttctg tggcgcaatt 240  
tgcgatattg ggattagtga gacccaaaga agcagtcgct gctgaagaga gctttgcaaa 300  
aatctggaca aggagggttt ttaaaagctg gttacaatac tcccgaaaagt ttaaccagtg 360  
aacagttca aatcgatgcc gaggctatga aagacccgca agtaaaaaag ggactggaga 420  
atttgagagc tt 432

<210> 5562

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H10

<400> 5562

aattaccggc tcgacccacg cgtacggcg tatatacaac tgacgaccga tcatctcctg 60  
aaaatgaaga aagcaagata cttgcagcaa ctggttccta tggatggctc aaaacattgg 120  
aaggattgtg cgaaaggcta gaagcatcct gtacagaaac cgaaaaccaa attagtgcaa 180  
cagaaaactc tctaaacaga gagccgccag agtccttt gaaagtgtcg aagaaagact 240  
ttccgaaaca gcagttgacg aggcttcaa tttccatgaa gcgattgaaa aactttgtc 300  
gactggaagc tccttgcg ttggtagaa agaagatcag cgttgaaag agagttagct 360  
tctgaactgg aatattggat atcttggat aaggaagagt tacaaacgtt ggactctcac 420  
atagagtgcg tcgagagact atct 444

<210> 5563

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H11

<400> 5563

aattcacggc cgacccacgc gtcagcattt cggcagttgt acagtttcag ttcacttcgc 60  
attaaccatg tttccagtt tttacaaacc tatacctggg gagacaagtc tccgaactgg 120  
agtgtacgaa aacagcagtg catcgttcc caagcttccc tccttctcca agctttcgcg 180  
ttcgtctcct tcttcatttt ctctgtcttc agtatcttcc aaaagtgtat cctccaaaag 240

tccgtcttcg aaaagattgt cttctccaag ttctgttcc aacagaccgt ctcccccaag 300  
gtcaccttct agtcgttcat ccagttttc agactcttg cctgatattt ccggccagagt 360  
tgaaaaatat ttctcgaagc acaagaagaa tatatttcaa gtgggttagac tggctgttag 420  
gttaaccaga gaggattatc ctaatg 446

<210> 5564  
<211> 341  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H2

<400> 5564

tcccggtctcg acccacgcgt acgcccacgc gtccgcttaa agatccagat cgaatttgat 60  
ccagaagaga aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa 120  
attaaggta gagaatggac gataaggaac taggcaaaag gatatggtat ctgcggtaga 180  
acatatgaaa gaagcagcac cgactgtta gcaaaaacac agcaactctgc ataaaagaga 240  
aatgtaaag cgcgtacctt ttgcataatg tcccatcgag tgaaagagga agcaaaaatc 300

atgaacatct cagtatccag gtaagacccg aagcaaaatg g

341

<210> 5565  
<211> 364  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H3

<400> 5565

gaccCACGCG tacgcggacg cgtgggtgg aagaaagttt cgagaagaaa tgcttcaagc 60  
caaagcttca cactctacca acatagaact ccatgttggc gatagatgct ttgttgcgcc 120  
taataaccgt gttgcaacag ttctgttacgt cgaaaagctt cctgttcatg aagctgaaac 180  
agtgtttgtt ggagtccaat ttgacgaacc tggtagaaag aatgtatggca gttatcaagg 240  
acattactat ttctactgac aaccaggata tggaaagttt gtccctttga atagaataac 300  
caaaatggaa actattcatt cagagagtga aaataatact tttgaagaat tgtaatgatg 360  
agag 364

<210>	5566
<211>	374
<212>	DNA
<213>	Cyanidium caldarium
<223>	Clone ID: LIB190-069-Q1-E1-H6
<400>	5566
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cgaaaaatccgc aacgcttgtt acagaaatcg agagaatatc cttggtgccg agtaattata 120	
gtgaatgaag cttatcccag caaaaacctgt agaatgtgtg gacagataga ttccaaacta 180	
agaagatagg aagattttca actgtccgca ttgtaaagaaa cggtgtgatc gaaatatcca 240	
tggagctcgc aagaacttgt tgcgcttctt gggcaaaaaaa cggttaattcc tttaagtttc 300	
caaaatgtgg tcagacaaga attaccgggt tagtgcgagt aagacagtag acatttattt 360	
acttacaaca atac 374	
<210>	5567
<211>	435
<212>	DNA
<213>	Cyanidium caldarium
<223>	Clone ID: LIB190-069-Q1-E1-H8
<400>	5567
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aattcagtca ggcaatgtat tgcaagtaga atggagaggt gcatctccgt gggtggcaga 120	
ttatcataat agcaacttac aagctgctcg ttccgcattt caaaaagtgt atcaagttga 180	
tccagacttgc accagagaag gtggttctat tcctatcagc aatactttc aagaatattt 240	
ggaaagagaa atttgtttga tgcctttggg ttctcccgat gatggagcgc atagtcaaaa 300	
tgagaagatg aacaaaactca attatataca aggaatcaaa gttattatag ctttatatgaa 360	
tgaacttgc aattgctaga ctctttccc gctatattcc actctaataa tataaaagga 420	
taaagttgtt cttgg 435	
<210>	5568
<211>	455

<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H9

<400> 5568

cggtaagaa ttacggctc gacgcacgca tcagtttc tttccatga aaagatggaa 60  
aatgcgattt cctatgatcc attagaaca tcctttctt ctcccgacc tcatgccacc 120  
accacattaa tgctatatct tcagcaagtc aatggtctat atcaacaatc cgtatcattg 180  
tgtgagacca tcgacgacaa agaaccggag tcgcaatgcc gtacattca aacgagtctg 240  
gtggcaaaca attttttgg caacatcata ttgtccactt gtctcatcg ggcaacctct 300  
ggcaattcgt ttggaagcaa cttgaatatc ccacctata acagtaccaa ggaaatagat 360  
ggctatctt ggtacatcgt ggcagccgga agctttgtga tatggtggtc attccttgcc 420  
ttgttatat tcaaaaacag atcgctatta aacta 455

<210> 5569  
<211> 295  
<212> DNA  
<213> Cyanidium caldarium

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<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-A5

<400> 5569

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agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat 120  
aaggaactag gcaaaaggat atggtatctg cgtagaaaca tatgaaagaa gcagcaccga 180  
ctgttagca aaaacacacgc aatctgcaga aaagagaaaa tgtaaagtat agagtgtcg 240  
gcctgccaat tagtagagaa gaaatcgatg aaagtgaaag cgagtaaaag attaa 295

<210> 5570  
<211> 376  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-A6

<400> 5570

aattcccgaa tcgaccacg agtcaaaaga aaagttgtt gaggacaaa cagagtaca 60  
agaagagatg gcaaggagaa tattgggtgc ttatatggga gatgccacag tggcaactct 120  
gttcagtatac aaaatgttgt tctatcttac tatcatgggt ttctccataa ctatcttggc 180  
tctcatggaa aagaactcgg atggtattt gatacatgt gtgccacctg cagatcaata 240  
ttgtgcatac aagtcttcat tggaggtgaa ccaccatggaa attgcttcattt attgcaagta 300  
tatcggtgcc gtagctgcta ttgggttggt tatctcggtt ttccagttt gctacggct 360  
gttgggtatac ttttc 376

<210> 5571  
<211> 382  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-A8

<400> 5571

acccacgcat ccaagcactg tggccgatgg tgcttccca tacgagaaga ctgcttccaa 60  
taggctttta tcatactggaa atattaagac agacaaaatt tatcaaccaa gaacagtcct 120  
caaccacctc tagtataacct agtgccgagg atactcctct ccatatcgac gaaagctgtg 180  
tccagcgctt gagatatgtt agtagccaaa ggggaggaaaa acctgttgct ttaagagtag 240  
cagtggatag tggaggatgt tcaggcttc aatatacttt tgagttgacc gaggaacagc 300  
cagcagagaa cgaaaccgtg gtggaaagaa acggttgcaa agtataatgtg gacgatattt 360  
ctctcccgct tttaaaggaa ag 382

<210> 5572  
<211> 413  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-B5

<400> 5572

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gcaagaagag aagagagaat gctgggtgga gtagcgaaac aagagaaggg aagtaaaagg 120  
taagaaagag gaaagggtta cgagagaagg aagtagaaag aagagagtgt aaggcggcgt 180

cataatagaa atccgaaagg agtagaagaa aagagagaga agaaagaaa gaagagaaaa 240  
gccgtactga agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag 300  
aatggacgat aaggaactaa gcaaaaggat atggtatctg cggtagaaca tatgaaagaa 360  
gcagcacccga ctgtttagca naaacacagc actcctgcag aaagagaana tgt 413

<210> 5573  
<211> 347  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-B6

<400> 5573

gacccacgca tccacggacg cgtggcgga cgcgtggga aggatataat cgggttcct 60  
ggaattgctg gcagtggagt gagcgtcggaa gaacgtgcag tagaagccct gttaaacgaa 120  
accctatatg ttaatgtaga tctcagggac tttccccgtt ttgatggga agattttaaa 180  
cccacgctt taaagaagat tagcaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaa 240  
agaaaaaaaaa acaaaaaagaa taaaggaaaa agtgcgtatg gtcacaaagt taaagcttt 300

gaacagcgac acaggaaatc aaatcaacaa caggggtggc ccccaa 347

<210> 5574  
<211> 366  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-B7

<400> 5574

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ctacgatatt tcttgttg gагtgggtt gttggtagt acagcctaa ttttgtgggt 120  
gttataaattt atccaaggct aaatacgtaa agagagacccg acagaaaaagt ctggtccggaa 180  
agccaagttt aaggaaactg gtgcaaagaa acaataaaaaa gttgactatg catgtgttaag 240  
tatttgttga tttccagta gaacaagcta aagttgtttc tgaaggcagt cctgttatgt 300  
tttgtgagtt ctgtttgata gttccagct attctttgg tagtgaataa agagaaaatt 360  
ttttat 366

<210> 5575  
<211> 395  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-B8

<400> 5575

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tacttagaac cgatacagac aaaatatcat gaattacgaa aggaggaatc ctatttgaaa 120  
caagtgtta aagaaggaag cgaatatgct tcgtcgatag cacaagaaac gataggcaag 180  
gtgaaggatt gcatgggtt tgtggaaacg gattgaaaag gtttccaaga tattttgtgt 240  
tttgtcgtgt gtatatgcgc gcaagctttt ggtggtgact cgtggacaca tggttgcaag 300  
ttgccagggg ttttttaggt cgatctttc cgttgggtg ttgctctcta tcgtagaata 360  
gaaagcgcgt ttttttgga taaaggcaca acaac 395

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<210> 5576  
<211> 260  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-B9

<400> 5576

cacgcgtcca gaggagaaag gagaccaaa ttaaggttag agaatggacg ataaggaact 60  
aagcaaaagg atatggtatac tgcggtagaa catatgaaag aagcagcacc gactgttag 120  
canaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg cggcctgcca 180  
aatagtagag aagaaatcga tgaaagtcaa agcgagtaaa agatgaggta tagagaatgg 240  
cggtcctaac aataaggatc 260

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<210> 5577  
<211> 385  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-C1

<400> 5577

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tatagagtgt gcggcctgcc aaatagttaga gaagaaaatcg atgaaagtga aagcgagtaa 120  
aagatgaggt atagagaatg gcggtcctaa cagtaaggat ccaaaggtag cgaagtaat 180  
agacgttga aaggcgtcca gtatgaaagg agaaacgagt gtagcactgt ctagcgtcc 240  
aactcagcga aacagcaata actgtaaaaa tgcagtaaac tagcagttatg acggaaagac 300  
cccataattc ttgacttagat aggttacgg angagagaga atcatgaagt anangaagt 360  
gggtaagaga tgaagacca ctgca 385

<210> 5578

<211> 372

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-C11

<400> 5578

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gtaggctaag aacaacaatc caaagaagga aacgttaaag catgaaagaa aagaaatccg 120  
aaaaagaaga gaaaaaggta agaaagaaga ccgaatcaag ggtagaagta aaggaacaac 180  
gaagaaaaaca aagaatgctg ggtggagtaa caaacagaaaa aggaagtaaa cgtaagaaag 240  
aggaaacgtt tacgagagaa agaagtagaa agaagagagt gtaaggcggc gtcatantag 300  
aaatccgaaa ggagtacaag atcagagaga gaagaatgaa tagaagagaa aagccgtact 360  
gaagaccgac ac 372

<210> 5579

<211> 422

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-C2

<400> 5579

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tatcctattc cgagtagttt tgtgccacct ctttctcctg ccctcacaa taatcagaag 120  
aggtaaggg atttgagca taatttgcg aataacctgg tataatggaga gtttccgcca 180  
cttatgaggc gtttatgtca cgaacatagc agaatgaata tgaggaggat gaagtcttcc 240  
tcgtccctcg agcacatcaa ggatgtgaga gagaatagct gcgaacgctg ccaaatgatg 300  
actagttgga tggtcgctat tagacaagct gttcttacgg cttcaacgct tccgttcgat 360  
ccacgctatc attatgtatc atatagtgt a gatagacgag gtattgtatt ctgcaacgaa 420  
ac 422

<210> 5580  
<211> 390  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-C6

<400> 5580

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tcgttccagg tgaagaagaa gagaatgatg atggaatggg taataataag gatacacgta 120  
cgagtaaccg taggatggca ccttatcaag tggtatcagt aggtggcacg tttgatcgac 180  
tgcattgcgg gcatcgat tattgatgt taacagcgtg gagttgtaac gggcacttac 240  
ggattggcgt gacaggacca aagttattgg agcacaagca gtgaaaggag ttgattgagc 300  
cttttgaaca acgagttgcc aatgtggttt catttgtaaa gaggattcgt cctcgagact 360  
tggtcgtgac tgccgtatag ttgcacgatg 390

<210> 5581  
<211> 350  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-C7

<400> 5581

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ggttacgaat gcatataaaa tagtattcag attgttatgg gaagttccctt caaaaatctc 120

ttagtaatag atggacgggc tctttgtaat tctcaaacta agtgagatcg tctcatcgta 180  
 cacacttcag agttacgctt cattagtcaa gtgtgcctag tattattcat gtgagcgaat 240  
 agcttccgag agatcgtaac ttgttcatga gtacttgtt aacatgtgat 300  
 tagatggtta tattaacata gtatcactca ctatgttatgt gatatcgaca 350

<210> 5582  
 <211> 407  
 <212> DNA  
 <213> Cyanidium caldarium

<223> unsure at all n locations  
 <223> Clone ID: LIB190-070-Q1-E1-C9

<400> 5582

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 ggagacgcaa aggagacttt gactcttatt ggaccgttac gagaattcaa agagataaca 120  
 agggagatcc ttccaagttc tttggttact atcactacaa gggtactgac ttgaaaggag 180  
 aaagagaaaat cgaactcgcc aattgtaaag gtggaggtg cgatacactt gaaaaggagc 240  
 gcaccaaatt gttggtaaa acaccgacag ttccttaaaa aaaaaaaaaa aaaaaaaaaa 300

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaacaaa aaaaaaaaca aaaaaaaaaa 360  
 naaaaaaaaaa aaaaaaaaaa aaaaaaaaaagg gggggccccct ctaaagg 407

<210> 5583  
 <211> 402  
 <212> DNA  
 <213> Cyanidium caldarium

<223> unsure at all n locations  
 <223> Clone ID: LIB190-070-Q1-E1-D11

<400> 5583

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 aaaaaaaaaaag cctggttgaa ttaaccaaac agaaaaagga aattaaaagg tagaaaaaag 120  
 gaaaggtaa caaaaaaagg aagtaaaaag aaaaaattgt aaggcggcgt cataataaaa 180  
 atccaaaagg aatagaagaa aagagagaga agaaggaana gaagagaaaa accgtactga 240  
 agaccgacac aggtactcga ggagaaaagg gacccaaatt aaggtgagag aatggacgt 300

aaggaactag gcaaaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga 360  
ctgttagca aaaacacagc actctgcaga aaagagaaaa tg 402

<210> 5584  
<211> 390  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-D6

<400> 5584

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acgttagattc gcaagtggag tcagcggtga ttttatttgg attgatttgg gtacaaccaa 120  
ctcttggtt gctattatgg aaggaaaaaa tcccagagtt attgaaaacg cggagggttc 180  
ccgtacgacg cttccgtcg tagccttcac tgcagaaggg gaaaggctgg tgggaacgcc 240  
tgcaaaaaga caagctatta ccaaccaga aaatactttt tttgctacaa aaagactgat 300  
acgaagaaga tttgacgacc cagaagtaca aagagatgt aagacgatgc cctacaagat 360  
agttcgagcg gataatggag acgcttgggt 390

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<210> 5585  
<211> 348  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-D7

<400> 5585

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aaaaataaaaaa tcagaaagtg atattaaagg aaatgaaatt gagtacaaac aactcttgc 120  
ttgctattat ggaaagaaca aaatcccaga gttattgaaa acgcggaggg ttcccgta 180  
acgcctccg tcgtatcctt cactgcagaa gggaaaggc tggtggata ccctgcaaaa 240  
agacaagcta ttaccaaccc agaagatact tttttgcta caaaaagact gataggaaga 300  
agatttgatg acccagatgt acaaagacat gtaaagacta tgccctac 348

<210> 5586  
<211> 440

<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-D8

<400> 5586

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gagtgtgcgg cctgccaaat agtagagaag aaatcgatga aagtgaaagc gagtaaaaga 180  
tgaggtatag agaatggcgg tcctaacagt aaggatccaa aggtagcga gtaaatagac 240  
gtttgaaagg cgtccagttt gaaaggagaa acgagtgttag cactgtctag tcgtccaaact 300  
cagcgaaaca gcaataactg tgaaaatgca gttaaactagc agtaggacgg aaagacccc 360  
taattcttga ctagataggt ttaaggaaga gagagaatca tgaagtanag gaggtgggt 420  
aagagatgaa agacactgca 440

<210> 5587  
<211> 308  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-D9

<400> 5587

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atgctgccat cggaaacat tcttctacga gatatctatct ttcttagcaag ttccctcatct 120  
tcatactgtc gttttagaa ataacggga agagtttcat tcgatgccc taattgttt 180  
aagagttgtt gcgtgtcttc actcaaggaa gctacatagt cttcttctac gatgtcaccc 240  
aaatgataga tacttaaatt ggaaatgtgc ttgtgtaaagc cttgaataaa actgagagct 300  
tcggtaacc 308

<210> 5588  
<211> 406  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E5

<400> 5588

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attgttgca aaagatgcc aatgtgtcac tgcaggctat tctcaaggca taagtaattt 120  
gagcaaatgt ttctttccg ataagagtgc ccaatacttt tggattgccg cttatgcatt 180  
gacacccccc caactaaaaa tcaagttgcc ttataacaac accgatgtgg aacgtatcaa 240  
tgaagtagct acccaaggat tgaatcgtag tgcttgtta ctgaatgctt atgatattac 300  
cgtcaatgcc tttaatgata cgaaacaagg aactaccgat ggaattcact atctaagatg 360  
gatcaacgaa caagttgtac aattgttcct caatgcagtt gacaat 406

<210> 5589

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-E6

<400> 5589

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ataagcaaca aggcaacggc tgtgacaaga ccaatcaatc catatgctcc ataaaaggaa 120  
taagaagaat atttttcac agtcacaaat gtatttctta tggattcaa aacattatcc 180  
atagtacttt tgaagtcgt tgcttcgtt tctatcttt gcattgcttg taatatgtca 240  
gaatatgcag gataactggt atttagttgg gcctgaagac cttgagaaga aaaggtctgt 300  
tggaaaaaat tagcagaggc agtcatccaa tgaatggaac catcgagagc atttcgtcg 360  
tgaccaaaac tctttacang cacatgctt cctagaaagc caaatgctgc accaca 416

<210> 5590

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E8

<400> 5590

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tgatttcttc cattcctaaa acttctcgac atacgaatct ttataaaaaa aactccatcc 120

aaagtgttgc ttcaactttgc agagagagaa actttactag ttctacagaa acttcgagtg 180  
tcggtagtcg tttcaagaac attctcgtag aagcccgtag tgaccgagtg ggtttaatca 240  
cgctcaacag gccaaaacaa ctcaatgcc acaacgagga gactcaacaa gaagtgcctc 300  
aagcgttgga agagtttgat cgcgatcggtt ctataggagc catcgctttg actggaagtg 360  
aacgagcggtt tgctgctgga gcagatatca aagaaatggg caatcgcaac tttgtg 416

<210> 5591

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E9

<400> 5591

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agagacaagt aagagaacaa cattcgaaac aagagcagga tatggaaatg cagacttgca 120  
atgaaagaag agataaaaga gcgaaaagaa ggtcgggaac tttacatcggtt ggcagtcaag 180  
aggaattgaa atagcagtcg tggatattgt agaccaactt gtatttgcatgttgtt 240

tcgttagttt ttagaaacat tcacctttat ttgatcgctt gtgcctgtt ccccatgaaa 300

aaccctctgt aaagaaaagg tcgataaaat tctctggtgc cacaatttcc caaaaaaaaaa 360

aaacacac 368

<210> 5592

<211> 386

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-F11

<400> 5592

acccacgcgt ccggaaaaga gaaaatgtaa agtatacgat gtgcggcctg ccaaatacgta 60  
gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa tggcggtcct 120  
aacagtaagg atccaaaggat agcgaagtaa atagacgtt gaaaggcgctc cagttatgaaa 180  
ggagaaacga gtgttagcact gtctagtcgtt ccaactcagc gaaacagcaa taactgtgaa 240  
aatgcagtaa actagcagta ggacggaaag accccataat tcttgacttag ataggttttag 300

agaggaaaga ggttatgat gcaggcaaag aagtacgca gtagattaga gagtaacaca 360  
 tgcaagtagg taaagcgaac gggta 386

<210> 5593  
 <211> 445  
 <212> DNA  
 <213> Cyanidium caldarium

<223> unsure at all n locations  
 <223> Clone ID: LIB190-070-Q1-E1-F6

<400> 5593

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 gagatatgga gagttctta tccaattgga agcagacgtt cttgcaga acaaaaggca 180  
 cagcagcagt ccaaagaagg tgaagaacca ataacgcctt atcaacctgt gacggagaag 240  
 ctggataaaa gagacccaaa ctatccttg aagtggagaa gtttcttcc tgaacatacc 300  
 tacaaaccca acctaataat caatctggaa aggcatcata cacctttaga ttttagat 360  
aggtagctc gggaaatcgt caagttta agattttg cggatgcctt tttcagaaa 420

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cgataacggac aacgcgtgt tgtgc 445

<210> 5594  
 <211> 360  
 <212> DNA  
 <213> Cyanidium caldarium

<223> unsure at all n locations  
 <223> Clone ID: LIB190-070-Q1-E1-F7

<400> 5594

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acccacgcaa tccagtgtgg tgggggtgac tggaaacgta cgaggaagca ttgtcagg 60  
 ttggggtttt tacaaggctt ttcgtataat aaaccctctt gtgttgcgt tttggcga 120  
 aaaccacagt tgtgtttctt tcctcggcaa ccatggacaa gttgtaaaag aagagggagc 180  
 ctanggatag tagctactgc gactacaacc agcaatagca ataatagtat tcaagaccac 240  
 aacaacaaca ataataataa taatggtaac attttattcg tattgtaaac gaaggccct 300  
 cacatgaacg anatataaac taagtgggt tatggcactg aaccaagaaa acgtcgaaca 360

<210> 5595  
<211> 378  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-F8

<400> 5595

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catcggtgcc ttctggggaa agacgttcga agtcagttag aagaggattt tcgcgtttca 120  
atgcgtcgaa taacaacttg gcccgaatgt tggcgctttg agctatttct tggcaagaa 180  
gaggacctca ttcaactttc cactggatg ggcgttccaa tgcttgctgt acggtaactg 240  
gaggattttt ttgcccacac aaatgataca agtgaagtgc taaagatatg catctgatg 300  
aacgataaa gtatggctta tattcggttgg ccgcagataaa cattaagtaa taatattcc 360  
cgtttcgttgg tccatatt 378

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<210> 5596  
<211> 377  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-G5

<400> 5596

acccacgcattt ccagaattt gtttggatca caaagatgag gaagacgcgg ttcttttagta 60  
acaatttttag gaaaagttagt accggatgtt tggctcaaa aaggacaac aagggtttgt 120  
tctctatgt atatcacggg ttgatgtctg ctcttttct gcttgggtt ctaactctt 180  
ttgggtgtggg aatatatgtt gaagtaactc attctggaaa gtttgacttg gattggacga 240  
gtatctttt gatgtgttgc acgaactttt gaaatgtgc catcatatgtt ggagccacgt 300  
tggcagtttat tggagctatt gttttgtt cattttactc tggttttgtt gggaaattct 360  
tcaagttgtt gatattc 377

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<210> 5597  
<211> 418  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-G6

<400> 5597

aatgccccggg ccgacccacg agtccacatt gtgcagagtc atggtcact gccaaaaaga 60  
cggttatgca ataggaaagt tatgattcca ttttgcgtt caaataacaa tagcgagaag 120  
gagaggaagg tcgtcctgt agatagagaa aagaaggtgg ttggagttgg tatggccggc 180  
ttggattta ttgccaaggt tcacaagttt cctcagccag atcagaacat aagaagtgt 240  
caacatagca ttcagggagg cgaaaatgct gcaaatactt tgacttgttt gaggagatta 300  
ggtgtaaacg ctgttctagt aacgaaaatt ggtagtgact ttgcgtctca atccattatc 360  
gaagagttgg aacgtgaaga catggataca ntttcatta caagacaaga tggtgctc 418

<210> 5598  
<211> 345  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-G8

<400> 5598

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acattatatt categagccg agtcttcttc gtctcgacgt gcagtttagca tttttatgt 120  
aagattggcg gaaaagtgtga tgaatcgaga acgaagactg gcggggttcaa agaaaccatg 180  
tggaaagtat tattcctact actagtgaca cagtggttat tcgtgtcaag tgtataatgt 240  
actgtatagt ggataacaacg tcaactatca cctccttggc cagctatata gtagatcaca 300  
ttgatttctg aggaatgaca aattgtgaga agcaaagtca atgga 345

<210> 5599  
<211> 280  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-H1

<400> 5599

acaaacgacc tcgatgttgg atgacaagca atggcatcat atcttcacct tgggttgg 60

agaagagcaa ctttatcga tgagtaacca ccaacaatat cgtcgttat tggtaaaaac 120  
atatctccaa aaaattcatc agttacaaca agatatacaa tatctatcca aactgtataa 180  
aaccattctt cctacttgaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaga aaaaaaaaaaaca aaaaaataaa aaaaataaaat 280

<210> 5600  
<211> 392  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-H11

<400> 5600

gggcccaccc acgcgtccac ccacgcgtcc gggcctattc tatggcttt gcttgcgtg 60  
gtctagcgag tcttcaagt cgtttagta ctggaaaca gggttacaag attgttaactg 120  
ttgcaaataa tttgaacga gaaagaggac tgcgactggt gagttcccttc caaagtgcgc 180  
ggcagtggac ttcttgcaa ggttgttat gtgcgtatag aagtgacagc gttgtggagg 240  
gagggaaaaa gcaaaaggga gtcgctactg aaagaagtcc tgtttctaca gccattcccc 300  
tgggttatgc cgatgaatat ttccatcacg tgcacgttg gcgtccagga gatccaagta 360

aacgaacggt agtctatttg tggttggaa ct 392

<210> 5601  
<211> 417  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-070-Q1-E1-H5

<400> 5601

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aacccaaagtc accttgcgt tgtggcttga aatattccac ttgttaagaaa ctttatcgta 120  
tagatatttt acgaatatcc aaaccttagtt gtttgaataa actagacctt cgagcttctc 180  
agcaaaaaaaaaa ggactcaaag aactccaagt tattggcttt cgaaacgaat ggagatgttc 240  
tcaagttgg agtcttgggtt actagtagtt gccttttttgc ttattggttc ctattacaag 300  
tatttcgagt atctgaacaa acagctggac tgggtgactac tggattgtta actatcttg 360

gaatggact ttggacctt cgtattttc tcgcgggtct aatanagaga tgacata 417

<210> 5602

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-H7

<400> 5602

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gagatatgtt tgaatttctc aaggcttcct tcgaatggaa aagtcatgag aagcaaactt 120

tcttatggaa gttgcttctc aaggacattt ctaatcacag tcataatggaa caggtgttat 180

tgtgccatga attccttttgc caggtgcgtat cgaaactggc agttttttc attatcagcc 240

agcagagccg ttttaatgt gtttctgac tggatcatat tgcaaactcc caatatggga 300

atattattta ctctctttga attggagaaa acgtttcagg acanagtttc ngacattctt 360

tgttagttggc tcgtcaaacc tggcaagcgc caggaactca ttcaattta 408

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<210> 5603

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-A11

<400> 5603

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agatgctcag cgtcgaaagt cgttgcaagg tttgaccagg caacagattt cggatattgtt 120

ggaagcttgt gcagcttatac ccaacattga cttagtttt cagttggct gtgaggaaag 180

cgaatcatcg gaagtggat atccaggttc cacgataagt ttgggtgcgc agttaacacg 240

agaagaagaa gaagaggaga caggagataa acaaggacaa gatggcgacc tcgttcatca 300

tcctattgct tacagtacgc gctttccaga aaagaaaagaa gaaagttgggt ggttatttagt 360

cggtaatttgg gagctactc caacacttgt tgctatcaaa cgtctcatag tcaaggagg 420

tggaaaaaaag a 431

<210> 5604  
<211> 346  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-A2  
  
<400> 5604

attcacgggt cgacgcacgc gtccggaatg gagaccaccc acagctgcgg cattttgc 60  
atgttcgttt caagtgggtt ccaagtacaa ctgcacaaac agttatcttc tgttattcat 120  
tcaggaaata aatgtccatg gagaaaatgt tattcgaaaa atgtccctcg tgttcg 180  
attccaacaa ctgttagttgc aagttacaac tacaacatat ttcaagacga ccaagatcgt 240  
tcgagaagaa gaataacaacc aagagaaaaga gcctacaacg taaaaaaagcc ggttggtt 300  
gtagtggAAC aagcagaaga cggaatggta ttgtagcgg atatAG 346

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<210> 5605  
<211> 366  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-A4  
  
<400> 5605

tccagaattc acgggtcgac gcacgcgtcc gcaaagttag tcaattggcg ttgtgatgc 60  
agtgactatg cgattttggg ttacagtttg gaataagttg gtgtgacttt ggtctttct 120  
gcccttcagt cgaagtattg gagtagttt cggcttgcac ggaagagttc agtgcacgtt 180  
catgaatgtt ttttgcgtt cgtttattcg tgcaactggcc tcccttgtt ttacttacta 240  
cagaatttcg ccaaatatgg gggttgaaca agctttgccc gtggcttgcc ctatagtaag 300  
cgaagttctt agttgttggc aagtttctg tacgagacct gactggagtc tgggagtggc 360  
gactct 366

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<210> 5606  
<211> 318  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-A7

<400>	5606					
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acttggata	tcggtgaga	gtgattttc	aacgttccg	cctcgtggcg	gaccgcgtga	180
ctcggagtt	tacttgtaga	gtgtttttt	ttacactttt	gtatttatc	agttgttact	240
tcgcgtcact	aggtgctca	cgacttgtaa	caagtctccg	ttgtgttgtt	tcaacggatt	300
ttcggcctcc	tttttatac					318
<210>	5607					
<211>	270					
<212>	DNA					
<213>	Cyanidium caldarium					
<223>	Clone ID: LIB190-071-Q1-E1-A9					
<400>	5607					
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atgaaagcac	agaagaatgt	aagaaatggt	tagagtaaaa	accataaagg	taggcttaga	120
agcagcaaac	cagagagggaa	agcgttaaag	catgaaagaa	aagaaatccg	aaaaagaaga	180
aaaaaaaggta	agaaaagagga	ccgaatcacg	gtaagaggtt	gaggagcaag	aagagaagag	240
agaatgctgg	gtggagtagc	gaaacaagag				270
<210>	5608					
<211>	303					
<212>	DNA					
<213>	Cyanidium caldarium					
<223>	Clone ID: LIB190-071-Q1-E1-B11					
<400>	5608					
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gtttttacgt	gaatacttat	aagaagaaac	aagtattgga	aaagaaagaa	tcttcaaacc	180
tctttctacg	tatgagttgt	tggtgttgtt	gttgtatgg	gaggaaatgt	taccaccacc	240
ccacacacac	aagttgcaat	aaagcacttg	aaaattttt	gggttggaaa	aaaaaaacaa	300

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303

<210> 5609  
<211> 67  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-B2  
  
<400> 5609  
  
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tatagaa 67  
  
<210> 5610  
<211> 370  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-B4  
  
<400> 5610  
  
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tagttccaaa acaaacgaatg gggctgctgc tgctccaaa gagaccaaac tcagttccat 120  
  
tttttagtgtt caaagtacgg attcgaaaac aaatactact agtgcttagtt ccaggacagc 180  
tagcagacca gcgaaaacca atgaaaagat ggaaactccg ataggaagtg caaagttgg 240  
tttcttatct tcccgaatga aacctagtgg aattggtacc actcctacta cttagtaccgt 300  
gggcagtagc ttatccccaa agaatcaagc acgtccaagt acgacaccaa gcaataagaa 360  
acattnagaa 370  
  
<210> 5611  
<211> 447  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-C11  
  
<400> 5611  
  
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ccaagttca gttggaactt attcagtatg gtcttttc acctggttt tggacgagag 180  
aaaatgttct gcttttat ttggagctcg tgtcaggtgt attcataagg gacactctct 240  
acctttcta caacaaaggt gaagaacatt tggcgag ttaatgctg ttgttgaga 300  
cacaagttc actgtatgca gacataaaa caaactggga gaaacgacac ttatcgaaa 360  
gcctcatcgt caggtcttg tgtgaggaat atcaacgaca gtattcagag ctatgtcac 420  
cgaatgaaag cacgaaagat atgctac 447

<210> 5612  
<211> 325  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C2

<400> 5612

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cgtgagtgac tagtgcattcc tttgcaatttgg aacacaggc cgtgtgggaa gaggaggagg 180  
tgatagctt catgtcgctcg agtgaggcct acggtagcgg tagcactgtt gtacagcgg 240

tggaaatagtg gcttcaggag ggactccatc ccaaatttcc tcaagtaaat cgagcgttcg 300  
acgagctcac ggggagtcat gtcag 325

<210> 5613  
<211> 334  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C4

<400> 5613

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tgggtttgg tgaaggagca caagtgtgc attgttgttcaatactgttt gtaatagtag 120  
cagtgagagt agcatgacga gtagtaacag tggtagtgct catcaacaag ccaaggattt 180  
ggtggagtcc agtagcaaaa atgagtggac agagcctgca gctgctgtgg caggaacttt 240  
ggcctccttg ggactgataa gaatgtagtc taatggacccgtatataaaa attccgtcga 300

cttgaaggc gaagtaggtg tagtgacagg tgcc 334

<210> 5614

<211> 385

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C6

<400> 5614

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gcccgctttt tcttagaaaa cagagctatt tttccaggtg ctagagttt ggaactggct 180  
tgtggttccg gagaaaccac tttgcaagta gctgcggaaag taagaggcta ttctgtacct 240  
tcaggagaga ccacggggga actgggtggat aaattgttgg agatattacg tccatcttat 300  
cagcaggaag ggaaactgga tggtgccagc aatactggtt cggttagtagg ttagatatc 360  
gccaaggaa tgctgaatgt gtgca 385

<210> 5615

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D11

<400> 5615

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ccgttcgagg gtggtttta tcacggaaaa atactgtgc cacctgaata tcccttcaag 180  
ccacctgata tcgtcttgct aacaccgaat gggcgtttg aaacaggaca acgtatctgc 240  
ctgagtgta gtccttcca cgaagagaca tggcaacctt cttggagtat ttactccatt 300  
ctgttaggcc ttcgttccct tttccttgc aaggcagaag gagttggagc tctccagtgt 360  
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aatttctcct tatcgacgtt taaa 444

<210> 5616

<211> 443  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D12

<400> 5616

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tttacgattt ggtgttttaa ccatcgagtc attgggttat attgatcctt atcgaaaagg 180  
ttttcacaat gaaagagtaa tttatccgat tggtttcgg tcaaggcgtc attttacttc 240  
aatgatgaac gttgatagac agtgtgacta tatatgtgaa atagtggatt gtggatata 300  
ttatcccata ttttagagtaa cttgtgaaga tttaccggat caagttttg aggaaaacttc 360  
tgcttctggc tggtggagcc gaattctcaa gattattaca gaaagaactc ctgaagaacg 420  
acgacgctca catgtttcgg tgt 443

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<210> 5617  
<211> 311  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D2

<400> 5617

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gatcacaggg gatagaatat cgttggaca gcagacacac acaaatacaa tccagttta 120  
cttttcatcc tgcgcaacag catcctttt ggtatcaaca gacttggag attgtgcaca 180  
gctaggcaaa cctagtcatg gcattcacat acgcgtgcac cgaagctaca actatatccg 240  
tatattggcgc actaccagtg gaggaaggac tgtctgttcc tcctcgaata cagacagtta 300  
cttctcccaa t 311

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<210> 5618  
<211> 323  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D3

<400> 5618

attcatgggt cgacgacgca tccggattt ccatgcctgc tgcgtcgagg ttggcagcga 60  
cagatgctag tgtgggtgaa agatccaagt ctatgatgag aatagatgga aagttggttt 120  
caggttagaa ggaaacccgc aagatagtgg acgactgttt agacgtgcgc aggagtgggg 180  
caggggtcga ttagtaagtt ggccgtggca gtgatcatac aaggttcagt tactgaactt 240  
ttcggttcgg ctcgaggccg tggaagttcg ttcacgaagc attttgaaa gtcacgccag 300  
cggttggag caagaacttc aaa 323

<210> 5619  
<211> 356  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D4

<400> 5619

gggtcgacgc acgcgtccgc ggacgcgtgg gttgttcggc ggtctgggg tgatgcctg 60  
gattgagcta cgttagtggca actccgctgt cgtgaaagac ataactgcaa gtattgagaa 120  
gcctgacata aaatggataa ctaggacgaa tctcagttact tgtcggatt ctgcagaagg 180  
aatgttacg gttgacttgt cgccgcgtg tagcttgaag gatatatttt cattgaagct 240  
tctcgacaag aacgtgaagt tggcgtgtt taatgatgcc ttgtgttag ttttaccagg 300  
ctttagcctt tggattact ggtggcgga gagtctgttag aggctcgggc ttgaat 356

<210> 5620  
<211> 387  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D9

<400> 5620

tgcggaaat tagagaagaa atcgatgaaa gtgaaagcga gtaaaagatg aggtatagag 60  
aatggcggtc ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg 120  
tccagttatga aaggagaaac gagttagca ctgtctagtc gtccaaactca gcgaaacagc 180  
aataactgtg aaaaatgcagt aaacttagcag taggacggaa agacccata attcttgact 240

agataggttt agggaggaga gagaatcatg aagttagagga ggtggggtaa gagatgaaag 300  
accactgcat gaggataagg aatctaactg agtaaggaaa ataagcttaa gctagtttg 360  
ctggggaaagt aaagcctaag aaagagt 387

<210> 5621  
<211> 441  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-E10  
  
<400> 5621  
  
tcccggtcg acccacgcgt acgtgcattt ttttcttgggt gtgtcatggg aagaagaggt 60  
ggcagtttgt ctgctagaag aactccgcta aggtcaaaac ctcccccttt tgcaaaaaga 120  
gaaagggaaag aagcaacaac gaaacagtct tcacgtcctg cgtcttcgct ggccaacgtg 180  
aagaataatc ctacgagtgg aaaccaaaga gagaagacca accaaacgcac gaccctcaca 240  
actcagaagc ctatgtatgac ctcttctctt ttgggggaa tgcttaggaag tatgctcccc 300  
atgttttat ttatgaactg gttcaagagg aatcccggagg aaagggaaacc agacaaagat 360  
gagatagctc agaagaagtg tcagacgctt gcgtgcaata ttcaagattt tttggaaaaa 420  
  
aacgactatc agcaaagtat g 441

<210> 5622  
<211> 454  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-E12  
  
<400> 5622  
  
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gaataaaaaa cggttgtcct tcataaaaaa gtgtcaactt ccgttctcc ctgaagacat 120  
tgaatctcaa attctggaaat tattagagta tgtaaaggat gttgctgttg cttagatgg 180  
ttgttaagcga tggaagagac tcgtggatga aaattcccaa ttgtggagac gacttcaagg 240  
ctttacacta ccaaaacgcac taccaagtga agcggaaaag tggtatagaa aggcaagcgg 300  
atgtggaaat cgagaggcaa tggtgcttct tgccttgctc tattattatg gatatcagag 360

tcaggatgcc acagtttgt ctttgacgtt tcttcgaaat agtgtcgctt gtttagtgcaa 420  
cgagcactag tgtcgttggt gaggtattta taaa 454

<210> 5623  
<211> 355  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-E3  
  
<400> 5623

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gagaagtaga ggaaatgagt agtttcgcaa tagacagtac aaggaggcat gcgagtgtta 120  
tactgttgct cgtagtaaag aaatgagtac agaagaccgg gcagcgtgtt ttgcgaagag 180  
agctgcagca aagctaaagt tggaagacta tcgaggggct ttggaggatt gttccgaagc 240  
tttgagctt gatgaaggct attggaaagg aaagtaccga cgaaaggaat gctatttcga 300  
gctgggtcgt gatgagggag ctggaaaga tgcaaaggc acgaaggaga agcac 355

<210> 5624  
<211> 331  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-071-Q1-E1-E4  
  
<400> 5624

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gggagaggggt attatagttt gcaatgaaag gtggacagag attagtccag cggtaggaa 120  
gattgaactc gtgcgcgtat cttaaccggc gaatattcgt tctatctagg aagttcaggg 180  
gagtgccag ccaagtccgg cagccaggaa acgggagaag gcttccttg tagtggatcc 240  
cagttggtc gttgcgtgag atgggagtga tttgtcggtt gttgtgggtt attggcagac 300  
actgaagtgg gtgtaggctc aactcctgat a 331

<210> 5625  
<211> 435  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-F11

<400> 5625

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caacaactcc tatgttcaact ccaggctgaa taagaacgtc gccactccaa agtttaactg 120  
cacacataat aaagtctgtg ttgtcagttg ctccaaagat cccaccagtc ggaataacaac 180  
tcgaaggaa gcaattggaa cactgtttc tactgctgca ttgagtatta ctattccctt 240  
gttacttgcc gagaaaaccaa ctgtggacaa gccagaacaa ctcagaaagg atgttgagtc 300  
tctcaaatac gacgaagagc tcatacttgcgaa tccagaccct gccgaaaaag atcctcttag 360  
gtatcagcct ccgccaagg aacctaata tcgcaaacaa gaaaaagagc ttatcaagtc 420  
cgacgaagaa aaata 435

<210> 5626

<211> 250

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-F2

<400> 5626

gtccagaatt cacgggtcga cgcacgcgtc cagggatttg ttgcgaagag gttcggtgca 60  
gatgttgcgt cgtggccgg ggaggatact gcgacgcata ttatcagcgg gcgactaatt 120  
atgaagacac ggataacaat ccgcattcga gtcgttcgtg aattcagttt gttggtaggc 180  
cttcagaatt ttcctgatgt tagtagttt tcggatcgaa gaaagcataa taaaatgatt 240  
tcctacagga 250

<210> 5627

<211> 327

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-H3

<400> 5627

attcaagggt cgacggacgc gtccgaccac gcgtccggag agggtgcgtg cttccgtctc 60  
cacttcccggt cgcttaggtc cgatggtagg agcgggtata agtggagcaa cgctgtataa 120

ccatgtggat ggagttactt ctttttcaa ggaactatct agggccgcca tgtatagcct 180  
gacgaagcca aacaaagcaa acgtggcttc gtctggtaa ggcgactctc aagaactaca 240  
gtcggtggcg gagcaaatta ggcgccttc aagagaagta tcgagggtccc gtgcagcagt 300  
tcaagaaaag tcttcgagac aacctct 327

<210> 5628  
<211> 425  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-A10

<400> 5628

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gatttattgg aacaaaatgg aatccagaat aagcgtgtaa gagaattcat tttagaaaat 120  
ttaaccacgg atgatgttca tcctaagcac tttaaatggc gcgtaacgt ttctgcttta 180  
ttgaattcta tgaatagaat actcgaattt cctgtgaaag aagggaaaac atactctcg 240  
ccgacgctat ttatccgagg agaaagatca atttatgtta tgaatccgtc cgctgaaaag 300  
gctattcggc ctttttccc aaaagcagtc attgaaacaa ttgaaggagc aggacactgg 360  
ttaaccgttg aggcaccaga aaaattttgt gcagttgtga acagttcct tcataactca 420  
actga 425

<210> 5629  
<211> 304  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-A2

<400> 5629

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taagaagcag ctgctgaacc tttcatccat gatagcatca cagcttttgt tagtagacga 120  
aataacttcga gctgggagag atgttcgttc aaaatcagggc agtagtcaat aaagctatcc 180  
attcttcgtta aaaaaaaaaa agtaaaaaaaaaa aaaaaagaaaa caaataaaaaa tcagatgaaa 240  
aaaaaaaaaaag aaataaaaagg gaggacgatc aagaggatgg aagcttactt ggcgtgcatt 300

ggaa

<210> 5630  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-072-Q1-E1-A7  
<400> 5630

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gtccggccac gcgtccggca tttctgaaga agagttggat ttgtggcac aattaccaa 120  
ttcaattctt gtatctggag acttgaaatg gaacttggat ggcctacttg aaatgatgtg 180  
ggagaaaactc aacctgattc gagtgtatac taaacccaaa ggtgaacctg ccgactttga 240  
agtcctgtc attttacgca atgatagggaa acattgcaca gttgaagcat tttgtaataa 300  
gttgcacaaa agtattatga aggagttaa gtatgccctc gtttgggaa gtagtgtcaa 360  
gttcaatcca cagaaagtag gaaaggatca tatacttcat gatgaagatg tcgttcagat 420  
tgtgaaaaaaaa ata 433

<210> 5631  
<211> 424  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-072-Q1-E1-A9  
<400> 5631

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tccaagggtt cgagagctt acaaacgtt tctattgatt ggaaagcact atcctgagcc 120  
tttccaagt gtaggcaga aaataaagag agggttcaa aaaaatgcta tccttctga 180  
gaaacagtcg atagaagaaa cacttcaacg tggggagttt gttctgaagg aagtcgaagc 240  
cctcgtgcga ttgcataaat acagaacttt aaataagcgt tatggaagga ataaatatga 300  
caattgagac ccaattcttc tagttctact gttaccttgg agaacaaagt ttgggaacat 360  
aaagctcggc gcagaatttt gtaagtatta ttcctcaaaa catgattagc gaagaaaagt 420  
acta 424

<210> 5632  
<211> 294  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-B10  
  
<400> 5632  
  
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gagcggatat gtctctgaca gacatcctgt attgggtgga cacagttagt tggaaacaaac 120  
gcgttgaccg tccactatct gggacttgct tcattatata tttcagagta tttcatata 180  
cttgtgcctt ctgggtatt gctgactaca tggagcgtca gcgcaagtac aggctgcatt 240  
aaagtgtcga caagacctac ctgcaggttgc tgccaagagt tgtgttcaaa caac 294

<210> 5633  
<211> 433  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-B11  
  
<400> 5633  
  
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atgtcaagtc gaagatacaa gacaaggaag gtattcccc agaccagcaa cgtttgatt 120  
ttgcaggtaa acagttggaa gatggtcgta ctctctcaga ctacaacatt caaaaggagt 180  
ctactcttca ctgggtctta cgtctgaggg gtggaatgca gatattcgta aagactctta 240  
ctgggaagac catcaacttt gaagtggagc cctcagatac tattaaaaat gtcaagtgcg 300  
agataacaaga caaggaaggt attccccag accagcaacg tttgattttt gcaggtaaac 360  
agttgaaaga tggtcgcact ctctcagact acaacattca aaaggagtct actcttca 420  
tggtgttgcg ttt 433

<210> 5634  
<211> 442  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-B12

20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50

<400> 5634  
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tgccgcagtt gcagccgacg tagttcaga ggagagatgg ggatatgctc agcaaaccga 180  
acaacagcaa cagtgcacaa aagtatgtaa acagtatgca tactatcaga gtccagtcg 240  
cacttccgta accacacaga gcccatactg gacccaatgc tcgaagactg tgcaaaccctt 300  
tgtcccaagc cagtgcatgtt cttataccca attccttaca tggacctatt gcagcaccta 360  
caccaccact agcgtaccat ctcaatgcag caaggccgtg actacctata ctcaaaccctg 420  
ctgtgcttat gccccaaacaaa ct 442

<210> 5635  
<211> 408  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-072-Q1-E1-B9  
<400> 5635  
ggtaaccgtt aggaattccc ggctcgaccc acgcgtacgc aacaacaaag cgccgatcga 60  
ctgcaagatt cgtctccaga taagcttgcataa aagaacagg aagatagtt aagacgaaag 120  
tacggtaact tgccggacaa aaggcacctt ctccagcaac gactcaaggc aaaccacatg 180  
cacgaacgaa aatttttgcatactgcagac gcaactttgg ccaaacaagg aaaggaattt 240  
gccgaagaag ttggcgtgga acatgcctac ccaacctcgg aggatgagtg ctcagacgct 300  
agttcacgtt caagtggcag ctcctctaga aaccctcaga atttgactaa gcatcaacaa 360  
cacttgaaaa ttggtcctac taaagcaaattcccgataccg aagcctct 408

<210> 5636  
<211> 427  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-072-Q1-E1-C10  
<400> 5636  
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gcttcagaga agcgaccatc gcggaggtaa gactgctcaa cacatcctt cttgtttaa 120  
gaactctcaa aaaccttta ggagcaggaa tataatctaca gttgcctgcc agccacttt 180  
tggttccct tcttctgtcc tagttcctc tcggcgagct gtctcgccg gatcgaactt 240  
gttctcggtg agatggtttgc cgatctgcc ttctatagc atcctaaaga tgccttcctt 300  
gtctccaact atgacacaag gcaatcat tgactggaaa aagaaagaac gtgataagct 360  
gtcacctgct gatgtgattt cacatattga gacagacata gctacaatgg gatgttgagt 420  
gccaaaga 427

<210> 5637

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-C11

<400> 5637

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ttcggtttgc tctgagttt gtggatatg ataccaaagt atcttccgtatcgactg 120  
cctctaagac acacacaggt gcccttgaag attgttgtgg cgttattcat tttgcaactg 180  
gacagacggt acacttcgat tgtggttta ctgtggatt tcgtcagtgg ggagagtgtg 240  
ttggtaaag aggaacagtt actgtggacg actttatagt tccatttact tgggtggtt 300  
cttcgttcc aagagataag agcaaataca acccgAACCT caagttcga atcaacaaat 360  
tggctgttga gaaagataac aaattggaga tgattgatcc tgtcatac 408

<210> 5638

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-072-Q1-E1-C12

<400> 5638

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cgatggaaat gatctctggg cggtatattt ctggtaaag gaagcaaagc aacgtatTTT 120  
ggaaaccggt cgcccacttt tattggagtt gcttacttat cgaggaggac atcacagcac 180

cagcgatgac tcttctcgat atcgccaaaa aacagagatt gaaatgtatt ccgagcgttt 240  
gagtccttg cgtcgaatga aacggtttt agagttcga aatcggttga atgaagaaat 300  
ggatcagagt tatgttggaaag agcaaagaag agaattgttgc agtgcttgg aagaaggcaga 360  
aaaggctccc aaggcacctt tggaagatct ctcaacgat gtgtacgatg agttgactcc 420  
tcatttataaa caacanaaga cg 442

<210> 5639

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-072-Q1-E1-C6

<400> 5639

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ggaaaaggag ggaagaatcg tcgtcgagga aagaacgaca atgaagaaga aaagcggaa 120  
ctttgataaa agaagagggc caagaatatg cgcaagtgac tcgcattttg ggaaacggac 180  
ggtgtgaagc cttatgttgc gacggactc gaaggctatg ccatattcga gggaaatgta 240  
gaaagaaggt ttggattaat gccggagata ttgttttaat tggcttgaga gactatcaag 300  
acgaaaaagc cgatattata ctaaagtata atccagatga agctagagca ttgaagtctc 360  
aaggagaaat tccagacacc acgaaaatca acgaagaaga gggtaagaa ggangggaa 420  
ttacgtttga tttcgatgtat gt 442

<210> 5640

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-C9

<400> 5640

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tccgacaagc tatcgataga gtccatcgaa ttggacaaac aaaaacggtt attgtaaaga 120  
gaatgatagt tgcaaacagc atcgaagaga atctcttaaa agttcaagaa aagaagaaat 180

tggttgccga ttccacgttg ggctcaacag aagtgtcgaa acaaaggcaga caaattactg 240  
tcgaagattt gacgatgctt tttcaggact gaatgcacag cttgtaaaag gcctaattgc 300  
tgtcggatag tatggagttc gatcgcaacg acaccgtgaa tattgtttg gttgcgtgca 360  
attctgtaac attttctta acttgctctt aaqgcqaata qtttgcgttg cgt 413

<210> 5641  
<211> 118  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> : Clone ID: LIB190-072-Q1-E1-D1

<400> 5641

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tcgccccqctt ttttcccacq acaqctattg tctaccaagt tggcttgttgc tcccgttg 118

<210> 5642  
<211> 377  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D10

<400> 5642

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agggatgaaa tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt 120  
aaatgaggcg agaaagcata ggaggtgaaa cgatttagga acccgtagt tctatgcagt 180  
aaaagaaaga atgagtaaga aaaaagggag tcattccacc agggagtaa aggcgcaaga 240  
aagaaaccca aagcaattga cggaaatcg aaaaaggggt ggatcacgta aattaatccg 300  
atataaaccg agaaccttac ctctccaaga atgtgttgcg cggctgtcga tagaacgtgc 360  
tgttaattctg agagaac 377

<210> 5643  
<211> 414  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D11

<400> 5643

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gaaaatgcag taaaacttagca gtaggacgga aagaccccat aattcttgac tagataggtt 120  
tagggaggag agagaatcat gaagttagagg aggtgggta agagatgaaa gaccactgca 180  
tgaggataag gaatctaact gagtaaggaa aataagctt agctagttg gctgggaaag 240  
taaaggctaa gaaagagtaa attaggcaag caaaaacacg tgccagcagc agcgtaaaa 300  
cgtgtgttagc aagcgttagag cagaagaact gggtgtaaag gtcgagtagt agagtaagt 360  
taaaaaggaa aggaaaggag agaaagagga aacggatgaa atgcagagat ctct 414

<210> 5644

<211> 407

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D5

<400> 5644

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tgggcgaact ttggtgacga cgtttcat ttataaggta cataataaaa tatcattctt 120  
taatggcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaataaaa aaaaaaacga ggcgacgccc aaaaggttca aacctaatta aagctgttaa 300  
gtaactgaaa atccctacaa atctgttaacc aaaattgaat ttaggtgaaa ctttttaaaa 360  
aattctaaat gggaaaaaac ctggatttac aaaatttaac ccccttg 407

<210> 5645

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D8

<400> 5645

ggtacctagt aaggaattcc cggtcgacc cacgcgtacg caaacgtcta tggcaacgg 60  
cacgagatgg agtacacaaat atacctgttt cggtggtta taaaaaggat ttatcgtc 120

aagatggaac atcgctcta ttattggaag gatatggtgc ttatgaaata agcaatgacc 180  
ctagattcga tcctggttta ttagtctgt tggatcgagg tggatgttgc acagtggcac 240  
atgtacgagg tggaggagaa ttggcagag attggatga acaaggaaaa tatttgaata 300  
agaagaatac atttaccgac ttttgatg tttgtgatta tttgtgcaa gagaaatact 360  
cgagtttgg tcgagttgct attatggaa cgagtgcgg tggattgttga 411

<210> 5646

<211> 327

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D9

<400> 5646

gtaccggtag ggaattcccg gctcgaccca cgcgtacggg ttggtagacaa cgacagggtt 60  
cgacgtcgac gatggtatgt gtgttgtgt gtgtcctaaa caaatcaaag atatcaagga 120  
atttctgctt ttggccgca gggaggatgc gagagccatc acaataaaga aagggaaagac 180  
caacacgaaa ttcaaagtcc gttgcagcag atattgtat actttggtag tgaaagaaaa 240  
ggacaaggcg aacaacttgg aacacagtca tccaccagggt ttgactttga aaaagattga 300

ttagaaataa actctatcgt tgctgtt

327

<210> 5647

<211> 345

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-072-Q1-E1-E1

<400> 5647

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ccaaattggc aattggcgcc attcgatag aagatcgct ccattgtta agtttctaac 120  
caacaatcat aatacaagag atacacgtgg tcaccatctt tagcagattt cagcatatgg 180  
aaacatggtt tggatgact actgcatact ttctttggag acaatgattc gatatccgct 240  
tgtgccattt ggctgtccgt ctatgaacga cgccctggaa gagcgatatg tctgaatgt 300

tgaaaaaaaaag atgaatgccg ttggtaagg aattgccatg aaaaaa 345

<210> 5648

<211> 378

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-E10

<400> 5648

aattccgggc tcgacccacg cgtacggact gcgccttcttt tcaatccttt caaatattga 60

gcttggacca tcgaaatcct cggtatattt ttgaataaaa aacgagaact aatatggaaa 120

aatatcgaag gttttagcga gccaaaagtc cgggcccagac tccgcccgaat caagtacgaa 180

taactgcggc gggcaaagtg ccagcctatg tggactatgc agtcaagttg cttcaagagg 240

ataatggcac cgtggaaatc gtcgggctgg gtaatgccat caataaggct atcactgttag 300

cagaaatattt gaagcgaaaa gtccccaaagt tggagcaagt aacaaatctt agttcggtga 360

ctattgaata ccgctggg 378

<210> 5649

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-E11

<400> 5649

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gacactgtta gagagatgtg cacaaacgtt tttaaactcc aagttgattt caggacagaaa 120

ggaaatgttt gccaaaatgg ttgttagatgc tgtctttcg ttggatcctg gaatggatat 180

atcttgatt ggtataaaaaa aggtgcaggg tggatcaatt tcagactctc aactagtaca 240

gggagtagct ttcaagaaga cattttctta tgcaaggattc gaacagcagc ccaagaaatt 300

tatcaatccg aagatagttt ttttgaacgt ggagttggaa ctcaagtcag agaaggagaa 360

tgcagaagtc cgagtggaga cgacgcagga ctaccaagga attgtcgatg ccgagtggga 420

acata 425

<210> 5650

<211> 360  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-E12  
  
<400> 5650

aggtaaccgtt caggaattcc cggtcgacc cacgcgtacg gggAACCTTA ataaAGTTCT 60  
taagagacag ctgtcgTTT agtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaACAGGGC 120  
agacacacaa aaaAGCAGGA CGGTTGCGTA TGCTGGATAT CCgACTTCCT TATTCCttCT 180  
TGCGTGTtCC TGACTCTtCA TTCACGGGCC CTCCtttAC TTCACTGCTC CTCGTTtAC 240  
actgtcgtga CGGGTCTTAA CCTGCTTTA CCCAAGTTCA CCTTCGTGAA GTAGATCCCC 300  
CTTCCGCAT GCTGGCATCG TATCCCCGTC GCACTAATTG ATCAGCCTTC CTAGCACTTG 360

<210> 5651  
<211> 421  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-E6  
  
<400> 5651

aattccggc tcgacccacg cgtacgacccg aatcaggta agaggttagag gagcaagaag 60  
agaagagaga atgctgggtg gagtagcgaa acaagagaag ggaagtaaaa ggtaagaaag 120  
aggaaaggTT tacgagagaa ggaagttagaa agaagagagt gtaaggcggc gtcataatag 180  
aaatccgaaa ggagttagaaag aaaagagaga gaagaaagaa aagaagagaa aagccgtact 240  
gaagaccgac acaggtactc gaggagaag gagacccaaa ttaaggtgag agaatggacg 300  
ataaggaact aggcaaaagg atatggtacT tgccgtagaa catatgaaag aagcagcacc 360  
gactgtttag caaaaacaca gcactctgca aaaaagagac aatgtaaagt aaagagtgtg 420

C 421

<210> 5652  
<211> 394  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-E7

<400> 5652  
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cgaggcaga aaggatagag ttgcactgtg gttggtccaa ggaggatcga gaaaaccttc 120  
ttgttgcgtt gaaagagaca aaacaattag atgcaacagt ccttcgcaa catgtgaaaa 180  
gcaaaagccc tgaggaaata accgaatatac taaaagtatt aaaggacaga cttgggaaga 240  
aagatgacga aggaatgcag ccagatgtat cttttatgc tgcttgcta tctttggagt 300  
tgtatcatag tggagccatt tcccctggtg gttgttttc taaaaaactg gaacatatgg 360  
acaagaacac ggtttccac gattccgtgt ctca 394

<210> 5653  
<211> 353  
<212> DNA  
<213> Cyanidium caldarium  
<223> Clone ID: LIB190-072-Q1-E1-F10  
<400> 5653  
taccggtacg gaattccgg ctcgacccac gcgtacgccc acgcgtccgg gagacgttgg 60  
ctggtatgtg gttcgattta ttctatcatt tggatac gatgtaaag ttatcggt 120  
gtatgcagtt ggcaatgaaa cggaaggagg atcgatggac gattgcgcag gagttgtgga 180  
gtttgaagag aacattactg cacacttga ctgtggattc acaagtggtt atagacaatg 240  
gggtgaatgt ttaggtacac ttggatgtt gagagtggaa cgtttcaag gagctccgt 300  
tcctaagaat acagaagaga aggatccaa attgcacgtc gaatttcatc aac 353

<210> 5654  
<211> 344  
<212> DNA  
<213> Cyanidium caldarium  
<223> unsure at all n locations  
<223> Clone ID: LIB190-072-Q1-E1-F11  
<400> 5654  
cattcnccgc tcgacccacg cgtaagccca cgcctccggc atacgttgcc tcgtacatag 60  
ttctccat tctaccattt catatgcattc ccatcgtaa cttattccg tgtacgcagt 120  
tgacaacgaa gggaaacgag gatccatgga ccattgcgcgca cgagttctcc actttcacca 180

caacatcact ccacacttcc actgtccatt cacacctcg tatacgacaa tggcgtcaat 240  
gtctacgtac acttccccatg ttgccactcg cccctttca ccgacctccc gttcctaaca 300  
ctacagcaga caccgatccc aattttctct tccactgtcc tc aa 344

<210> 5655  
<211> 444  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-F12  
<400> 5655

ggtaccgggtt aggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc ggcgaaagat 60  
agatggacag attccttgg aggctgggtt cgtttcttat taaagggtgct gcaggaacag 120  
tacgttcctc cctccattct gatgtggga acagaacttt acagagattc ggacttgttt 180  
caagtaaatc caaaaagtcc agtggcagac acatgtctcc tgcagagtgc caccttagtc 240  
tatgttgaa acacgtattc ttacagccac gtgtacgggtt gcgttagtatt atgtttatcc 300  
actttttatg tactccctt gtattactgc ttcttttgc ctggtattta ccgagttctc 360  
cagaatttttgggtatactttgcactgcattccgctcgagcctgggtgtggatttaaaaaa 420

acttgtgctt tccagatttc atat 444

<210> 5656  
<211> 209  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-F3  
<400> 5656

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tgacgcccgtg gatagcactt cagacatgta tgatgaattt acctatttag ttcaaaattt 120  
cgaagttact gaaccgaaga acaaattgaa tggcttctta ctttatattt gtaaattgt 180  
aaaaatata ttttcttta ttcataatg 209

<210> 5657  
<211> 420

<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-F6  
  
<400> 5657  
  
aattccggg tcgacccacg cgtacggcaa attggcagag ttttgtcaaa aagtaccagg 60  
actccgtgga ctgtacaact tttagctcg cgtcatata agaggtgtag aaagagagtt 120  
gcgcaagtac ggactgagat acgatgacct tctcaacgag caagatccgg acgtaaaaaa 180  
agctcttcaa atgctccgg aacatgagaa gcagttgaga gccaagcgtt ttattcgac 240  
gtttgatttgc tcgatgaaga agactcaattt acccgatgaa atagcacaaa aggaagatata 300  
ttggAACCCA tacttgagaa gtcgcattcga gctgattcgt aaagaaaaAGC atcgaaatga 360  
gacctacaaa taaacaacaa taaaagtaaa agttttccc ctttggtttggggggcggt 420

<210> 5658  
<211> 398  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-F7

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<400> 5658  
  
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tgctccctaag cgcgatgata tagcaactcc aaaaaatatg gaaccgaaag cgcttagcat 120  
gtttgtact ctactgttgc ttccatgct cgagatcgt tttactatata cgagactat 180  
ctacgggtgt tctgttattt gagataactc gaaatatttt ttagatgttgc ccaataactt 240  
tggcttttat tatgagtattt gcacaggtgg aatattatca gacgacaaaaa tgaaagaaga 300  
cgaaatggac gagatgaacg agggaaatgt tcaaattgctc aagttaatat ttccgaaaat 360  
tgtttcgaa ggtattaaga aagagtattt ggactacc 398

<210> 5659  
<211> 421  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-F8  
  
<400> 5659

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aacaggact cgacagatat ggcttccgggt gttcagtag acgatacatg cgaaaggag 120  
ttcaactgttc ttgtgagaag cacgccaaga aagtaccgtg ctattatTTT caaactcact 180  
gatgaccctgt cttctgtatg tgtggaaaag acgcttcccg cagccaaacat aaccaagtgc 240  
agtgcacaag aagactggaa aaagttgtg actgaattgc cccaaaacga ttgtcgTTT 300  
gcagtatatg actttgagta tcaaacttct gaaggtgtt ccaaaaatag aataatattc 360  
attcttggt cacctgaaag tgcgaagata aagtcaaaga tggtaatc ttcatccaga 420  
g 421

<210> 5660  
<211> 317  
<212> DNA  
<213> Cyanidium caldarium

<223> unsure at all n locations  
<223> Clone ID: LIB190-072-Q1-E1-G1  
<400> 5660

cggtcaggaa ttcncggctc gaccacgcgt cagagttgg ttgtttctt ggttagcagt 60  
gtacattcaa catcatcaa tgccaaagg aggaaagaaa gattctcaa agaaagaagc 120  
cacaagtaaa cctgcagcag cagatgtac aaagacgaca gaaaagtctg gtccggaaagc 180  
caagttgaag ggaactggtg caaagaaaca ataaaaagtt gactatgcat gtgcagtcct 240  
gttatgtttt gtgagttctg tttgatagtt tccagctatt ctggtag tgaataaaga 300  
gaaaattttt tatattt 317

<210> 5661  
<211> 420  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G10  
<400> 5661

aattccgggc tcgaccacg cgtacgagaa agtaaggaat aagaacgaag aactacgaca 60  
aaaacgccaa agattagaag agttgaaagc tcagaagaga gctgtagaag ccatgttggc 120

ccgaaatgct tcgagttcag cttctgaact tcagccagaa agctgcatac atttcctt 180  
tattatcggt tctaccagtg cagacacttc tatcgatgtg gaaatggaag aaaatgcgga 240  
agaagttta ttcaactttt atagaccttt tgaaatatac gatgaccaag tcatttgca 300  
aggaatattt cgaaaacacaa atgtttccaa cagaagagac gaacatgaaa acgtatcggt 360  
ttctgagaag caagcatatt caagtaattc tagacagtcc agtgaggcaa gtcaacattc 420

<210> 5662

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-072-Q1-E1-G11

<400> 5662

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tgcaagtgg ggttgagttg cagagagtgc aactgtagcg agcatagatt tatctcccc 120  
ctctgcggtg aaaatgatgg agaagacttg aagtatttga cccaacgcaa tatttccaa 180  
agcaccatat tgagattcgg agcttgatgc atattcctta ctgtaaaaat catcctggct 240

ttggtttact tgggacggag tttccttcag atatgcacgt atattatcga ccccgAACCA 300  
aaacaacaaa gcagttgcaa tataatcatc gataggaagg gtatgtaatg agctggaaa 360  
tgcatgaaac aattgtccaa tcagtacgaa aagaatcgac ataacaagaa gtgccgtgag 420  
agttgcaaca nacacta 437

<210> 5663

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G12

<400> 5663

taccggtag gaattcccg ctcgacccac gcgtacgggt ttggggtttgg tttgggtgaa 60  
gatggcgcac tatcaacatt accgagctag tacagcgggt atagctttgg gagaagcaact 120  
ttctgaactc aaggaacaga agctctttac ggaagcggaa gaagatgtga tttggaggaa 180  
gtttgaccgt gccatgacag aagcccttgc gtccaacgtt gtggatacac accttacgtt 240

gaaagtaagt cctttagcag ccttaacct tgcttaggg agtcttcatc 300  
actatcgatt ctgtgataat gtgtggcaat tcttcgtcaa agacgcacaa gtgaaatttg 360  
acaaaaggctc ggattttact cccgctggtt atctgaaagt agttgcttgt gattatgtaa 420  
agccaaacca 429

<210> 5664

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-072-Q1-E1-G3

<400> 5664

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cgcgagctgc tttatcttt ttgatttcta ccgcggttac aaagtcttat catcctcata 120  
ataacacaca cgattatgtc tccttgatt tcttgcatt gtatcgcaac tggttcaac 180  
gcgttggaat tcatagcggtt cctttgtac tagctaattt tactggtgac tccttgaaaa 240  
aacaagaaaa-ggctgataaa-gttcaaaaga\_agacaaagaa\_gaaaggctcc acaacggatt 300  
ccaaaaaggt aaaaaaggcc agcctcgagt cgcagccgga agatggtgcg gaaacaaagg 360  
ttgaacctcc tccaaaagag aagaagtttta agaanaagaa ggatcctgaa acagcgatac 420  
ctgaatatgc catccaaagc tttttttag 449

<210> 5665

<211> 257

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G4

<400> 5665

accggtagg gattcccgcc tcgccccacg cgtccggaca cgcgtccgga tcgatgcaca 60  
cacagggaaag cagtacaaca agacagagaa aggaggaacc tgagtatcac gacgacaaga 120  
gggagtacat gaggacagac acgatcaggg aactaacagt aagagaacga ctaatgtaa 180  
tgacagcagg aacgtatgg aacacgagag tgtaacgcgc gtacctttg catcatgtcc 240

cagcgagtga acgagga

257

<210> 5666

<211> 418

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G5

<400> 5666

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tgaattccgc cctttgtaa gaagattacc tgaattcaa ttctggctt ctgccactcg 120  
agctaccgtc cttgctttgt ttgctaccgc gtttcgattc ctggacatac ccgtatttg 180  
gccttatcttg gttatTTact tcattctgct ttttgtgca actatgagaa ggcagattgc 240  
ggatatgatt caataaccgtt atttaccttt taacattggc aaaaagaaaat actcaagttc 300  
ttccaagttt gtggcaaggc gacaagaagc ccatgataac gatgctgttgc cggtgaaaag 360  
ttccgcaaac gtcaaacttc caacttcagt ggaacccccc 418  
aggaatagtg cgactccg

<210> 5667

<211> 378

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G6

<400> 5667

aggtactagt ctggaattcc cggctcgacc cacgcgtacg cccaaagcatc cggaaagagg 60  
cagctacggg aaaggcgtaa gacaagaag acacaggaat caactgagta acaggaataa 120  
ggaaggggagt aaatcatgaa ataaagatca aggaattaag aataagagaa cgagtaatgt 180  
ggatgaaagc acgaaagtat ttgaagaaga tagtgtaaag cacgtacctt ttgcaaaatg 240  
tcccatcgag taaaaatagga tgcacaaaaca aaggcataga agtagtcagg taacacccgc 300  
atctatttga tcttatgctg tccattcaa gttagggctga accactatct gtgagaaaag 360  
atttgggaga gatcgcat 378

<210> 5668

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G7

<400> 5668

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aaagcagaaa aacagaaaaca acgttgcgaa agactaaaga atcgagcgct gcagagagat 120  
aagagagtat tggatgtt ggaacaaaata aggaaagccg gctgttatct ccctgaggag 180  
cgcatcttt gtcaacattt tgaggctgct gtggaggtg gtttcaaga cgatggtagc 240  
gtcgccctt gttcaatca cttactatct caggatcacg ctaatgtcac gcttggcac 300  
gagttggta acgcttttga tcagtgtcg gcacacgtga actggtcaga ctgtacccat 360  
cacgcttgta gtgaaattcg tgccccctta ttaagtggtg actgtgattt gaaacgagag 420  
t 421

<210> 5669

<211> 114

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H1

<400> 5669

aggtaaaaaa caacaaaata acacaaaaca acaaccaaaa caaaaaaaaaa aaaaaaaaaa 60  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaga 114

<210> 5670

<211> 455

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H10

<400> 5670

acgcccacag gtaccggta ggaattccgg gctcgaccca cgcgtacgcc ttgtgtgagt 60  
gttcctggag tgaagacgaa atatgagaat gtgaatgtcg ttacagttcg tgagaataca 120  
gaaggagaat acagcggtt ggaacacgtg gtgtatccag gtgtggtaga aatgatcaa 180  
ttgatcacga gagaagcttc gttgcgcgtt gctagatatg ctttgaata tgcgaagaac 240

aatcaaagaa aaatggtaac tgcagttcat aaagcaacgg tcatgaaacg agcagatggt 300  
ctcttttag aatgttgcg agaagtggct caagaatatac cgaatattca atatgaagaa 360  
ttgttgatcg atacatgtgc tgctcgctt gtacagaatc cttcgcttt ggatgtcatg 420  
gtgatgccca atttatatgg cgatatactc agtga 455

<210> 5671  
<211> 312  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H12

<400> 5671

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gatggcttga agaaagctgt ctatataact gcgcacagcac ccttttgca ctatcaccag 120  
gaaatacatg gaaattctt ctgcactatac aatatatggg cagtgccatt acaagccaca 180  
acactaccag ttccaccat gattatgtatgc ccacatggtt tactttccaa aaccttgtgg 240  
acactgccgt gccaatccac ccgtttagg ttgtatccag acatgcaggt tcagcatggg 300  
tccaaactcat-tt----- 312

<210> 5672  
<211> 354  
<212> DNA  
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H4

<400> 5672

cacgcgtcag gaaaaatagt agagaagaaa tcgatgaaag taaaagcgag taaaagatga 60  
ggtagataga atggcggtcc taactgtaa gatccaaagg tagcgaagta aatagacgtt 120  
tggaaaggcgt ccagtatgaa aggagaaaacg agtgtaccac tgtctagtcg tccaaactcag 180  
cgaaacagca ataactgtga aaatgcagta aactagcagt aggacggaaa gaccccataa 240  
ttcttgacta gataggtta gggaggagag agaatcatga agtagaggag gtggggtaag 300  
agatgaaaga ccactgcattt aggataagga atctaactga gtaaggaaaa taag 354

<210> 5673

<211> 363  
<212> DNA  
<213> Cyanidium caldarium  
  
<223> Clone ID: LIB190-072-Q1-E1-H6  
  
<400> 5673  
  
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